```
February 8, 2005, 14:47:14; Search time 153 Seconds (without alignments) 2203.281 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 MIRTAGRDGLCRLSTYLEEL.....MTHSRLAALRVTKPYLDIGC 1035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Published Applications AA:*

1: \cgn2_6/ptodata/2/pubpaa/USO7_PUBCOMB.pep:*
2: \cgn2_6/ptodata/2/pubpaa/PCT_NRM_PUB.pep:*
4: \cgn2_6/ptodata/2/pubpaa/USO6_NEW_PUB.pep:*
5: \cgn2_6/ptodata/2/pubpaa/USO6_NEW_PUB.pep:*
6: \cgn2_6/ptodata/2/pubpaa/USO7_NEW_PUB.pep:*
7: \cgn2_6/ptodata/2/pubpaa/USO7_NEW_PUB.pep:*
8: \cgn2_6/ptodata/2/pubpaa/USO8_NEW_PUB.pep:*
9: \cgn2_6/ptodata/2/pubpaa/USO8_NEW_PUB.pep:*
9: \cgn2_6/ptodata/2/pubpaa/USO8_NEW_PUB.pep:*
9: \cgn2_6/ptodata/2/pubpaa/USO9_PUBCOMB.pep:*
10: \cgn2_6/ptodata/2/pubpaa/USO9_PUBCOMB.pep:*
11: \cgn2_6/ptodata/2/pubpaa/USO9_PUBCOMB.pep:*
12: \cgn2_6/ptodata/2/pubpaa/USO9_NEW_PUB.pep:*
13: \cgn2_6/ptodata/2/pubpaa/USO9_NEW_PUB.pep:*
14: \cgn2_6/ptodata/2/pubpaa/USO9_PUBCOMB.pep:*
15: \cgn2_6/ptodata/2/pubpaa/USO0_PUBCOMB.pep:*
16: \cgn2_6/ptodata/2/pubpaa/USO0_PUBCOMB.pep:*
17: \cgn2_6/ptodata/2/pubpaa/USO0_PUBCOMB.pep:*
18: \cgn2_6/ptodata/2/pubpaa/USO0_PUBCOMB.pep:*
18: \cgn2_6/ptodata/2/pubpaa/USO0_PUBCOMB.pep:*
19: \cgn2_6/ptodata/2/pubpaa/USO0_PUBCOMB.pep:*
19: \cgn2_6/ptodata/2/pubpaa/USO0_PUBCOMB.pep:*
19: \cgn2_6/ptodata/2/pubpaa/USO0_PUBCOMB.pep:*
19: \cgn2_6/ptodata/2/pubpaa/USO0_PUBCOMB.pep:*
19: \cgn2_6/ptodata/2/pubpaa/USO0_PUBCOMB.pep:*
19: \cgn2_6/ptodata/2/pubpaa/USO0_PUBCOMB.pep:*
10: \cgn2_6/ptodata/2/pubpaa/USO0_PUBCOMB.pep:*
10: \cgn2_6/ptodata/2/pubpaa/USO0_PUBCOMB.pep:*
10: \cgn2_6/ptodata/2/pubpaa/USO0_PUBCOMB.pep:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1373511
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1373511 segs, 325702437 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                   OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                US-10-781-294-24
5472
                                                                                                                                                                                                                                                                                                                                                                                            Title:
Perfect score:
Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Database
                                                                                                                                                                                                                                         Run on:
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

	Appl	Appl	Appl	Appl	Appl	Appl	1, Ap	Appl	Appl	Appl	Appl	Appl	9, Appli	
_	24,	24,	24,	18,	18,	68	316	90,	64,	64,	64,	22,	6	
Description	Sequence	Sequence	Sequence	Sequence	Sequence			Sequence		Seguence	Seguence		Sequence	
ΩΙ	US-09-965-621-24	US-10-407-866-24	US-10-781-294-24	US-10-124-498-18	US-10-066-521-18	US-10-407-866-68	US-10-108-260A-3161	US-10-407-866-90	US-09-965-621-64	US-10-407-866-64	US-10-781-294-64	US-10-162-335-22	US-10-467-397-9	
DB	10	15	16	14	14	15	15	15	10	15	16	15	16	
% Query Match Length DB	1035	1035	1035	1001	1001	1027	1004	635	603	603	603	582	265	
% Query Match	100.0	100.0	100.0	99.3	99.3	96.1	92.8	61.5	57.8	57.8	57.8	54.9	54.0	
Score	5472	5472	5472	5433	5433	5259.5	5077.5	3364	3163	3163	3163	3005	2953.5	
Result No.	-	7	r	4	S	9	7	œ	σ	10	11	12	13	

ö

9 9 61 ITHFGPEBAWRLALSTFERINRKDLWERGQREDLVRDPQETYRDYVRRKFRLMEDRNARL 120

ઠે g ò

Sequence 24, Appl	'n	5,	Sequence 18, Appl	s,	18,	~	N	N	æ	-	ñ	S	Ŋ	S	æ	S	16,	24,	N	Ä	ä	H	'n	'n	œ	m	'n	m	7	7	Sequence 26, Appl
5 US-10-162-335-24	3 US-10-127-516-5	3 US-10-027-629-5	US-10-028-	4 US-10-132-967-5	-10-183-	0	4 US-10-028-374-2	US-10	5 US-10-407-866-89	S	US-09-799-983-2	us-	5 US-10-407-866-59	US-10	US-10	SD	US-09-965	US-1		US-1	US-10-781	S	US-10-124	US-10-066	-182	4 US-10-029-347-3	4 US-10-028-374-3	4 US-10-183-770-3	US-09-996-617-2	US-09-931-071-2	4 US-10-029-347-26
521 15	1034 13	1034 13	-	۲	٦	1034 15	449 14	٦	٦	321 15	344 9					924 15					994 16			896 14	1473 15	1429 14	1429 14	1429 14	1429 9	1429 9	1429 14
49.2	43.8	43.8	43.8	43.8	43.8	43.8	42.7	42.7	32.0	31.6	30.4	30.2	30.2	30.2	29.8	29.5	26.6	26.6		26.6	26.6	26.6			25.3		25.2	25.2	25.1	25.1	25.1
2694.5	2396	2396	2396	2396	2396	2396	2334	2334	1749	1731	1664	1653.5	1653.5	1653.5	1631.5	1598					1457.5		m	1432.5	1385	1381	1381	1381	1375	1375	1375
14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45

ALIGNMENTS

			<u>ئ</u> ۔	-2
		0; Gaps	AOL	AOL:
		G	EE -	- W - W - C
<u>8</u>	035	ö	AGP	AGP
# D	h 1		XE.	-A
o <u></u>	ngt	le18	WGS	-85×
de e bod	Į.	Ind	XI	ΞX
Meti	, 10,	0; Indels	95	- G
ion US/08965621 30077699A1 n. C. Adam -1.1 and -1.1 krzysztof no, Loredana axia Eugenia Christian PAAD Domain-Containing Polypeptides, Encoding Nucleic Acids, and Methods of Use 4816 NUMBER: US/09/965,621 2001-09-25 MODO-09-26 000-09-26 r Mindows Version 4.0	DB 10; Length 1035;	•	1 MLRTAGRDGLCRLSTYLEELEAVELKKFKLYLGTATELGEGKI PWGSMEKAGPLEMAQLL	ATE
P Od 's		6 9	I.G.	-6
ing 21 .0	472	Mismatches	-K	Š
cair. c. A 55,6 760 760	9 _	BMB	Ř.	ΞŽ.
521 Cont 51ei 571,	Score 5472;		YEI -	VEL
9656 t cof ana ana nia nia nia Nuc S/03 Ve)		ò	ELE)	ELE)
/ 99Ay A B B B B B B B B B B B B B B B B B B	100.08;		YLE	XIE
Application US/09965 o. US200300769941 MATION: Ged, John C. Godzik, Adam Chu, Zhi-Liang Pawlowski, Krzysztof Fiorentino, Loredana Ariza, Maria Bugenia Stehlik, Christian ENTION: Encoding Nu ENTION: PAAD Domain- ENTION: PAAD Domain- ENTION: PAAD Domain- ENTION: WHERE: US/0 NG DATE: 2001-09-26 OG ID NOWBER: US 09/ DATE: 2000-09-26 OID NOS: 64 stSEQ for Windows Ve SS	100.08	ive	LST	LST
4 Application o. US2003007 MATTON: eed, John C. Godzik, Adam Chu, Zhi-Lia Pavlowski, K. Fiorentino, Stehlik, Chra Stehlik, Chra Stehlik, Chra ENTION: PAAD ENTION: PAAD ENTION: PAAD ATG DATE: CB: PLJ 481 ICATION NUMB ATG DATE: 2000- Q ID NOS: 64 stSEQ for Will S		at	E.C.	-11 -12
Ccat Signature Signa	1	186I	380	HEDG:
on serious ser	á	S	ZTAC	ZIACI
NOON STANDARD STANDAR	£		Ψ.	Ξ
ULT 1 9-965-621-24 9-965-621-24 9-965-621-24 Application No. US20030 NERAL INFORMATION: PPLICANT: Reed, John PPLICANT: Godzik, Ad PPLICANT: Godzik, Ad PPLICANT: PANJONSKI, PPLICANT: PONJONSKI, PPLICANT: PONJONSKI, PPLICANT: PONJONSKI, PPLICANT: PONJONSKI, PPLICANT: PALZA, MAR PPLICANT: SCHILIK, ILER OF INVENTION: PA ITLE OF INVENTION: PA ITLE OF INVENTION: PA ITLE OF INVENTION NEW ITLE REFERENCE: P-LJ 4 URRENT FILING DATE: 200 URRENT FILING BATE: 200 URRENT FILING BATE: 200 URRENT FILING DATE: 200 URRENT	tch	103	1	Н
LT 1 quence 24 blication NERAL INF PPLICANT: PPLICANT: PPLICANT: PPLICANT: PPLICANT: ITLE OF I ITLE OF	X C	68		
SULT 1 -09-965-621-24 Sequence 24, Application US/09965621 Publication No. US203007769941 Publication No. US203007769941 APPLICANT: Red, John C. APPLICANT: Godzik, Adam APPLICANT: Godzik, Adam APPLICANT: Ali-Liang APPLICANT: Ali-Liang APPLICANT: Ariza, Maria Eugenia APPLICANT: Ariza, Ariza, Ariza, Ariza, Ariza, Ar	Query Match	Matches 1035; Conservative		
RESULT 1 US-09-965-621-24 US-09-965-621-24 PUBLICAUT: REPLICANT: GAPPLICANT: CAPPLICANT: CAPPLICANT	88	Σg	à	OD Dp
дразавана политический политический			\sim	н

```
PRT
                                                                                            Query Match
Best Local S
                                                                                                                                                                                                                                                                                q
                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                             Вb
                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                     g
                                                                                                                                                                                          g
                                                                                                                                                                                                      ò
                                                                                                                                                                                                                셤
                                                                                                                                                                                                                            8
                                                                                                                                                셤
                                                                                                                                                                                  ò
                                                                                                                          엄
                                                                                                                                       à
                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                          960
                                                                                                                                                                                                                                                                                                                    960
                                                                                                                                                                                                                                                                                    900
                                                                                                                                                                                                                                                                                               900
                                                                                                                                                                                                                                                              840
                                                                                                                                                                                              99
                                                                                                                                                                                                                   720
                                                                                                                                                                                                                              720
                                                                                                                                                                                                                                        780
                                                                                                                                                                                                                                                   780
                                                                                            360
                                                                                                        420
                                                                                                                  420
                                                                                                                             480
                                                                                                                                        480
                                                                                                                                                   540
                                                                                                                                                              540
                                                                                                                                                                        900
                                                                                                                                                                                   600
                                                                                                                                                                                                        9
                                       240
                                                                       300
                                                                                  360
                                                            300
                                                                                                                                                                                                                                                                                                                              LRIKRCRISSSACEDIJSAALIANKNITRMDLSGNGVGPPGWALLCEGLRHPQCRLQMIQL
                                                                                                                                                                                                                                                                                    RLTAAACDELASTLSVNQSLRELDLSLNBLGDLGVLLLCEGLRHPTCKLQTLRLGICRLG
                                                                                                                                                                                                                                                                                                                  RKCQLESGACQEMASVLGTNPHLVELDLTGNALEDLGLRLLCQGLRHPVCRLRTLWLKIC
                                                                                                                                                                                                                                                                    SAACEGLSVVLQANHNLRELDLSFNDLGDWGLWLLAEGLQHPACRLQKLWLDSCGLTAKA
                                                                                                                                                                                                                         I FSCWPEPSAPLQELIRVPERLLFIIDGFDELKPSFHDPQGPWCLCWEEKRPTELLLNSL
                                                                                        GAPRIOPPRORGICSLAADGLWNQKILFEEQDLRKHGLDGEDVSAFLNMNIFOKDINCE
                                                                                                                                    RYYSFIHLSFQEFFAAMYYILDEGEGGAGPDQDVTRLLTEYAFSERSFLALTSRFLFGLL
                                                                                                                                                         NEETRSHLEKSLCWKVSPHIKMDLLQWIQSKAQSDGSTLQQGSLEFFSCLYBIQEEEFIQ
                                                                                                                                                                               QALSHFQVIVVSNIASKWEHWVSSFCLKRCRSAQVLHLYGATYSADGEDRARCSAGAHTL
                                                                                                                                                                                                    LVQLRPERTVLLDAYSEHLAAALCTNPNLIELSLYRNALGSRGVKLLCQGLRHPNCKLQN
                IRKKLLPELSLLITTRPTALEKLHRLLEHPRHVEILGFSEAERKEYFYKYFHNAEQAGQV
                                       EPPRTVVMQGAAGIGKSMLAHKVMLDWADGKLFQGRFDYLFYINCREMNQSATECSMQDL
                                                                  LAALRVTKPYLDIGC 1035
                                                                                                                                                                                                                                                                                                                                                                 LAALRVTKPYLDIGC 1035
                                                                                                                                                                                                                                                                                                                       106
                                                                                                                                                                                                                                                                                                                                 196
                                                                                                                                                                                                                                                                                                                                             961
                                                                                                                                                                                                                                                                                                                                                       1021
                                                                                                                                                                                                                                                                                                            901
                                                                                                                                                                                     541
                                                                                                                                                                                                                                661
                                                                                                                                                                                                                                          721
                                                                                                                                                                                                                                                     721
                                                                                                                                                                                                                                                                 781
                                                                                                                                                                481
                                                                                                                                                                                                601
                                                                                                                                                                                                          601
                                                                                                                                                                                                                     661
                                                                                                         361
                                                                                                                    361
                                                                                                                                                     481
                              121
                                         181
                                                    181
                                                                         241
                                                                                    301
                                                                                               301
                                                                                                                               421
                                                                                                                                          421
         61
                   121
                                                                                                                                                                                                                             음 상
                                                                                                                                                                                                                                                   ద
                                                                                                                                                                                                                                                             දු පු
                                                                                                                                                                                                                                                                                      8 8
                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                             8 y 8
                                                                                                                                                                                              $ B $
                                                                                                                  ద
                                                                                                                                       요 장
                                                                       셤
                                                                                  ò
                                                                                            qq
                                                                                                      à
                                                                                                                               ò
                   8
                             g
                                        ò
                                                  용
                                                               ઠે
```

Sequence 24, Application US/10407866 Publication No. US20040002593A1 GENERAL INFORMATION:

```
780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      720
                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           480
                                                                                                                                                                                                                                                                                                                                       120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              420
                                                                                                                                                                                                                                                                                                              120
                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LVQLRPERTVLLDAYSEHLAAALCTNPNLIELSLYRNALGSRGVKLLCQGLRHPNCKLON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FNYVRDNEPLFTMCFVPLVCWVVCTCLQQQLEGGGLLRQTSRTTTAVYMLYLLSLMQPKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RYXSFIHLSFQEFFAAMYYILDEGEGGAGPDQDVTRLLTEYAFSERSFLALTSRFLFGLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NEETRSHLEKSLCWKVSPHIKMDLLQWIQSKAQSDGSTLQQGSLEFFSCLYEIQEEFIQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     QALSHPQVIVVSNIASKMEHMVSSFCLKRCRSAQVLHLYGATYSADGEDRARCSAGAHTL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAPRLOPPNORGLCSIAADGIWNQXILFEEQDLRKHGLDGEDVSAFLMMIFQKDINCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61 ITHFGPBEAWRLALSTFERINRKDLWERGQREDLVRDFQETYRDYVRRKFRLMEDRNARL
                                                                                                                                                                                                                                                                                                                                                                GECVNLSHRYTRLLLVKEHSNPMQVQQLLDTGRGHARTVGHQASPIKIETLFEPDEERP
                                                                                                                                                                                                                                                                                                                                                                            EPPRIVVWQGAAGIGKSMLAHKVMLDWADGKLFQGRFDYLFYINCREMNQSATECSMQDL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IFSCWPEPSAPLOELIRVPERLLFIIDGFDELKPSFHDPQGPWCLCWEEKRPTELLLNSL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IRKKLLPELSLLITTRPTALEKLHRLLEHPRHVEILGFSEAERKEYFYKYFHNAEQAGQV
                                                                                                                                                                                                                                                             1 MLRTAGRDGLCRLSTYLEBLEAVELKKFKLYLGTATELGEGKIPWGSMEKAGPLEMAQLL
                                                                                                                                                                                                                                                                              61 ITHPGPEEAWRLALSTFERINRKDLWERGOREDLVRDPOETYRDYVRRKFRLMEDRNARL
                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                               Length 1035;
APPLICANT: Reed, John C.
APPLICANT: Godzik, Adam
TITLE OF INVENTION: PADD Domain-Containing Polypeptides,
TITLE OF INVENTION: BADD Domain-Containing Methods of 1
TITLE OF INVENTION: BADD Domain-Containing Methods of 1
FILE REFERENCE: 66654-10(LJ 5755)
CURRENT APPLICATION NUMBER: US/10/407,866
CURRENT FILING DATE: 2003-04-04
CURRENT FILING DATE: 2002-04-04
NUMBER OF SEQ ID NOS: 129
SOFTWARE: FattSEQ for Windows Version 4.0
SEQ ID NO 24
LENGTH: 1035
                                   oŧ
                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                  DB 15;
                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                100.0%; Score 5472;
100.0%; Pred. No. 0;
tive 0; Mismatches
                                                                                                                                                                                                                               Best Local Similarity 100.
Matches 1035, Conservative
                                                                                                                                                                             , ORGANISM: Homo sapien US-10-407-866-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             721
                                                                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     601
                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
```

```
1020
                                                                                                                                                                                                                                                                                           540
                                                                   360
                                                                                                               420
                                                                                                                                                       420
                                                                                                                                                                                                   480
                                                                                                                                                                                                                                                 480
                                                                                                                                                                                                                                                                                                                                       540
                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                             600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     481 RYYSFIHLSFQEFFAAMYYILDEGEGGAGPDQDVTRLLTEYAFSERSFLALTSRFLFGLL
                                                                                                                                                                                                                                                                                                                                                                                                           781 RKCQLESGACQEMASVLGTNPHLVELDLTGNALEDLGLRLLCQGLRHPVCRLRTLWLKIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                841 RLTAAACDELASTLSVNQSLRELDLSLNELGDLGVLLLCEGLRHPTCKLQTLRLGICRLG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      901 SAACEGLSVVLQANHULRELDLSFNDLGDWGLWLLAEGLQHPACRLQKLWLDSCGLTAKA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            961 CENLYPTLGINQTLTDLYLTNNALGDTGVRLLCKRLSHPGCKLRVLWLFGMDLNKWTHSR
                                                          301 IRKKLLPELSLLITTRPTALEKLHRLLEHPRHVEILGFSEAERKEYFYKYFHNAEQAGQV
                                                                                                                                                                                                     GAPRLQPPPNQRGLCSLAADGLWNQKILFEEQDLRKHGLDGEDVSAFLNMNIFQKDINCE
                                                                                                                                                                                                                               421 GAPRLQPPPNQRGLCSLAADGLWNQKILFEEQDLRKHGLDGEDVSAFLNMNIFQKDINCE
                                                                                                                                                                                                                                                                                           RYYSFIHLSFQEFFAAMYYILDEGEGGAGPDQDVTRLLTEYAFSERSFLALTSRFLFGLL
                                                                                                                                                                                                                                                                                                                                                                                   NEETRSHLEKSLCWKVSPH1KMDLLQW1QSKAQSDGSTLQQGSLEFFSCLYB1QEEEF1Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QALSHFQVIVVSNIASKMEHMVSSFCLKRCRSAQVLHLYGATYSADGEDRARCSAGAHTL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   QALSHPQVIVVSNIASKMEHMVSSFCLKRCRSAQVLHLYGATYSADGEDRARCSAGAHTL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LVQLRPERTVLLDAYSEHLAAALCTNPNLIELSLYRNALGSRGVKLLCQGLRHPNCKLQN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LVOLRPERTVILLDAYSEHLAAALCTNPNLIELSLYRNALGSRGVKLLCOGLRHPNCKLON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RKCQLESGACQEMASVLGTNPHLVELDLTGNALEDLGLRLLCQGLRHPVCRLRTLWLKIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RLTAAACDELASTLSVNQSLRELDLSLNELGDLGVLLLCEGLRHPTCKLQTLRLGICRLG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SAACEGLSVVLQANHNLRELDLSFNDLGDWGLWLLAEGLQHPACRLQKLWLDSCGLTAKA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CENLYFTLGINQTLTDLYLTNNALGDTGVRLLCKRLSHPGCKLRVLWLFGMDLNKMTHSR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 4

US-10-124-498-18

i Sequence 18, Application US/10124498

i Publication No. US2003001/983A1

GENERAL INFORMATION:

APPLICANT: Beartin, John

APPLICANT: Batcher, Maxia

ITILE OF INVENTION: PROTEIN FAMILY AND USES THEREOF

CURRENT FILING DATE: 2002-04-17

PRIOR FILING DATE: 2002-04-17

PRIOR FILING DATE: 2001-09-10

PRIOR FILING DATE: 2001-09-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1021 LAALRVTKPYLDIGC 1035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1021 LAALRVTKPYLDIGC 1035
                                                                                                                                                                                                                                                                                                                                                                                      541 ]
                                                                                                               361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  661
                                                                                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        841
                         301
                                                                                                                                                                                                     421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            901
                                                          a
                                                                                                               ò
                                                                                                                                                g
                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                           CENLYFILGINQFLTDLYLTUNALGDTGVRLLCKRLSHPGCKLRVLMLFGMDLNKMTHSR 1020
                                                                                        900
                                                                                                                                    900
                                                                                                                                                                                960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IFSCWPEPSAPLOELIRVPERLLFIIDGFDELKPSFHDPQGPWCLCWEEKRPTELLLNSL 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                            61 ITHEGPEEAWRLALSTFERINRKOLWERGQREDLVRDPQETYRDYVRRKFRLMEDRNARL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CENLYFTLGINQTLTDLYLTNNALGDTGVRLLCKRLSHPGCKLRVLWLFGMDLNKMTHSR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 MLRTAGRDGLCRLSTYLEELEAVELKKFKLYLGTATELGEGKIPWGSMEKAGPLEMAQLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61 ITHFGPERAWRLALSTFERINRKDLWERGQREDLVRDPQETYRDYVRRKFRLMEDRNARL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IFSCWPEPSAPLOELIRVPERLIFIIDGFDELKPSFHDPQGPWCLCWEEKRPTELLLNSL
  RKCOLESGACOEMASVLGTNPHLVELDLTGNALEDLGLRLLCOGLRHPVCRLRTLWLKIC
                           RKCQLESGACQEMASVLGTNPHLVELDLTGNALEDLGLRLLCQGLRHPVCRLRTLMLKIC
                                                                                        RLTAAAACDELASTLSVNQSLRELDLSLNELGDLGVLLLCEGLRHPTCKLQTLRLGICRLG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 MIRTAGRDGLCRLSTYLEELEAVELKKFKLYLGTATELGEGKIPWGSMEKAGPLEMAQLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GECVNLSHRYTRLLLVKEHSNPMQVQQQLLDTGRGHARTVGHQASPIKIETLFEPDEERP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EPPRTVVMQGAAGIGKSMLAHKVMLDWADGKLFQGRFDYLFYINCREMNQSATECSMQDL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 16; Length 1035;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:

APPLICANT: Reed, John C.

APPLICANT: Godzik, Adam

APPLICANT: Godzik, Adam

APPLICANT: Pawlowski, Krzystof

APPLICANT: Pawlowski, Krzystof

APPLICANT: Piorentino, Loredana

APPLICANT: Ariza, Maria Eugenia

APPLICANT: Ariza, Maria Eugenia

APPLICANT: Stehlik, Christian

APPLICANT: Stehlik, Christian

TITLE OF INVENTION: BAAD Domain-Containing Polypeptides,

TITLE OF INVENTION: BABD DOMAIN BABD STORMER: US 09/671,760

NUMBER OF SOFTWARE: PattSEQ for Windows Version 4.0

TITLE OF INVENTION: 64

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     oŧ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%; Score 5472;
100.0%; Pred. No. 0;
ative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 24, Application US/10781294
Publication No. US20040142374A1
                                                                                                                                                                                                                                                                                                                                                            LAALRVTKPYLDIGC 1035
                                                                                                                                                                                                                                                                                                                                                                                   Query Match 100.
Best Local Similarity 100.
Matches 1035; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM: Homo sapien
US-10-781-294-24
                                                                                                                                                                                                                                                                                                                961
                                                                                                                                                                                                                                                                                                                                                                                                      1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                            781
                                                                                                                                                                                                                                                                                                                                                            1021
    781
                                                                                        841
                                                                                                                                                                                                                                                                    961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                         윱
                                                                                                                             g
                                                                                                                                                                                                                     g
ò
                                                                                        ò
                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                    윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
```

1019

993

```
GGLLRQTSRTTTAVYMLYLLSLMQPKPGAPRLQPPPNQRGLCSLAADGLWNQKILFEEQD 453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241 QGRFDYLFYINCREMNQSATECSMQDLIFSCWPEPSABLQELIRVPERLFIIDGFDELK 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EIIGESBABRKBYFYKYFHNAEGAGOVFNYVRDNEPLFTMCFVPLVCWVVCTCLQQQQLEG 393
PSFHDPQGPWCLCWBEKRPTELLLNSLIRKKLLPBLSLLITTRPTALEKLHRLLEHPRHV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OGRFDYLFYINCREMNQSATECSMODLIFSCWPEPSAPLQELIRVPERLLFIIDGFDELK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                97 --- DPQETYRDYVRRKFRLMEDRNARLGECVNLSHRYTRLLLVKEHSNPWQVQQQLLDTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RGHARTVGHQASPIKIETLFEPDEERPEPPRTVVMQGAAGIGKSMLAHKVMLDWADGKLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 MLRTAGRDGLCRLSTYLEBLEAVELKKFKLYLGTATELGEGKIPWGSMEKAGPLEMAQLL
                                                      LLAEGLQHPACRLQKLWLDSCGLTAKACENLYFTLGINQTLTDLYLTNNALGDTGVRLLC
                                                                                                                                                                       Sequence 18, Application US/10066521
; Sequence 18, Application US/10066521
; Publication NO CONTROL OF THE PRINTING SEQUENCE INFORMATION:
APPLICANT: Blatcher, Maria
APPLICANT: Blatcher, Maria
APPLICANT: Blatcher, Maria
APPLICANT: WANG, WOVEL MOLECULES OF THE PYRIN/NBS/LRR
TITLE OF INVENTION: PROTEIN FAMILY AND USES THEREOF
TITLE OF INVENTION: PROTEIN FAMILY AND USES THEREOF
TITLE OF INVENTION NOWER: US/10/066,521
CURRENT APPLICATION NUMBER: 60/218,645
PRIOR FILING DATE: 2001-09-10
PRIOR PILING DATE: 2001-09-10
PRIOR PRILING DATE: 2001-01-31
NUMBER OF SEQ ID NOS: 25
SEQ ID NO 18
TITLE CONTROL OF MINIOR OF SEQ ID NOS: 25
TITLE OF INVENTIOR DATE: 2001-01-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61 ITHEGPEEAWRLALSTFERINRKDLWERGOREDLVR--------
                                                                                         Score 5433; DE Pred. No. 0; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99.3%;
ilarity 97.4%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM: Homo sapiens
US-10-066-521-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
Matches 1034; Conserv
                                                                                                                                                               RESULT 5
US-10-066-521-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              154
                                               934 ]
                     900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ठ
                                                                   g
                                                                                                 ò
                                                                                                                        셤
                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  693
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      753
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           873
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           874 GVLLICEGIRHPTCKLQTLRLGICRLGSAACEGLSVVLQANHNIRBLDISFNDLGDWGLW 933
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                513
                                                                                                                                        2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ---DPOETYRDYVRRKFRLMEDRNARLGECVNLSHRYTRLLLVKEHSNPMOVOQOLLDTG 153
                                                                                                                                                                                                                                                                                                                        213
                                                                                                                                                                                                                                                                                                                                                 240
                                                                                                                                                                                                                                                                                                                                                                         273
                                                                                                                                                                                                                                                                                                                                                                                                 300
                                                                                                                                                                                                                                                                                                                                                                                                                          PSFHDPQGPWCLCWEBKRPTELLLNSLIRKKLLPELSLLITTRPTALEKLHRLLEHPRHV 333
                                                                                                                                                                                                                                                                                                                                                                                                                                                    360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            393
                                                                                                                                                                                                                                    61 ITHFGPEEAWRLALSTFERINRKDLWERGGREDLVRDTPPGGPSSLGNQSTCLLEVSLVT 120
                                                                                                                                                                                            9
                                                                                                                                                                                                                   ITHEGPEEAWRLALSTFERINRKDLWERGOREDLVR--------96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LYRNALGSRGVKLLCQGLRHPNCKLQNLRLKRCRISSSACEDLSAALIANKNLTRMDLSG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NGVGFPGNMILICEGLRHPQCRLQMIQLRKCQLESGACQEMASVLGTNPHLVBLDLTGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EDLGLRLLCQGLRHPVCRLRTLWLKICRLTAAACDELASTLSVNQSLRELDLSLNELGDL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LRKHGLDGEDVSAFLNMNI FQKDINCERYYSFIHLSFQEFFAAMYYILDEGEGGAGPDQD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VTRLLTEYAFSERSFLALTSRFLFGLLNEFTRSHLEKSLCWKVSPHIKMDLLQWIQSKAQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SDGSTLOOGSLEFFSCLYELOEEFFLOOALSHFQVIVVSNIASKWEHMVSSFCLKRCRSA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QVLHLYGATYSADGEDRARCSAGAHTLLVQLRPERTVLLDAYSEHLAAALCTNPNLIELS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BILGFSEAERKEYFYKYFHNAEQAGQVFNYVRDNEPLFTMCFVPLVCWVVCTCLQQQLEG
                                                                                                                                                                                                                                                                                                                       RGHARTVGHQASPIKIETLFEPDEERPEPPRTVVMQGAAGIGKSMLAHKVMLDWADGKLF
                                                                                                                                                                                                                                                                                                                                      QGRFDYLFYINGREMNQSATECSMQDLIFSCWPEPSAPLQELIRVPERLLFIIDGFDELK
                                                                                                                                                                                                                                                                                                                                                                                        301 PSFHDPQGPWCLCWEEKRPTELLINSLIRKKLIPELSLITTTRPTALEKLHRLEHPRHV
                                                                                                                                                                 1 MLRTAGRDGLCRLSTYLEBLEAVBLKKFKLYLGTATBLGEGKIPWGSMEKAGPLEMAQLL
                                                                                                                                                                                  Gaps
                                                                                                                                           28;
                                                                                                                 Length 1061
                                                                                                                                            Indels
                                                                                                                     14;
                                                                                                                                            ö
                                                                                                                     DB
                                                                                                                                              0; Mismatches
                                                                                                                   Score 5433;
Pred. No. 0;
            NUMBER OF SEQ ID NOS: 25
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 18
                                                                                                                     99.3%;
                                                                                                                       Query Match
Best Local Similarity 97.4
Matches 1034; Conservative
                                                                   TYPE: PRT
ORGANISM: Homo sapiens
US-10-124-498-18
                                                        LENGTH: 1061
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 814
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                754
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                              214
                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    334
                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                              154
                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                  274
                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                            97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                           ò
                                                                                                                                                                                                 셤
                                                                                                                                                                                                                           ò
```

273

153 180 213

120 96 9

Gaps

28;

Indels

ö DB 14;

Length 1061

Db 61 ITHFGPEEAWRLALSTFERINRKDLWERGQREDLVRDTPPGGPSSLGNQSTCLLEVSLVT 120 Qy 97DPQETYRDYVRRKFRLMEDRNARLGECVNLSHRYTRLLLVKEHSNPMQVQQQLLDTG 153	Db 241 GGRFDÝLFYINCREMNOSATECSMODLÍFSCWPEPSAPLÓELIRVPERLLFIIDGFDELK 300 Qy 274 PSFHDPQGPWCLCWEEKRPTELLINSLIRKKLLPELSLITTRPTALEKLHRLEHPRHV 333	Db 361 EILGFSEABRKEYFYKYFHNAEQAGQVFNYVRDNEPLFTMCFVPLVCWVCTCLQQQLEG 420 Qy 394 GGLLRQTSRTTTAVYMLYLLSLMQPKPGAPRLQPPNQRGLCSLAADGLWNQKILFEEQD 453 Db 421 GGLLRQTSRTTTAVYMLYLLSLMQPKPGAPRLQPPPNQRGLCSLAADGLWNQKILFEEQD 480 Qy 454 LRKHGLDGEDVSAFLNMNIFOKDINCERYYSFIHLSFOEPFAAMYYILDEGEGGAGPDOD 513		574 SDGSTLQQGSLEPFSCLYEIQEEEPIQQALSHFQVIVVSNIASKMEHMVSSFCLKRCRSA	691 QVLHLYGATYSADGEDKARCSAGAHTLLVQLKFERTVLLDAYSEHLAAALCTNFNLLIELS 694 LYRNALGSRGYKLLCQGLRHPNCKLQNLRLKRCRISSSACEDLSAALIANKNLTRMDLSG [Db 781 NGVGFFGMALLCEGLRHPQCRLQMIQLRKCQLESGACQEWASVLGTNPHLVELDLTGNAL 840 Qy 814 EDLGLRLLCQGLRHPVCRLRTLWLKICRLTAAACDELASTLSVNQSLRELDLSLNELGDL 873	QY 874 GVLLLCEGLRHPTCKLQTLRLGICRLGSAACEGLSVVLQANHNLRELDLSFNDLGDWGLW 933	QY 934 LLAEGLQHPACRLQKLWLDSCGLTAKACENLYFTLGINQTLTDLYLTNNALGDTGVRLLC 993	Oy 994 KPLSHPG 1000 Db 1021 KRLSHPG 1027	RESULT 7 US-10-108-260A-3161 US-10-108-3161, Application US/10108260A ; Sequence 3161, Application US/20040005560A1 ; GENERAL INFORMATION: ; APPLICANT: HELIX RESEARCH INSTITUTE
Qy 454 LRKGGLDGEDVSAPLNWNIFQKDINCERYYSFIHLSFOEFFAAMYYILDBGGGAGFDQD 513 Db 481 LRKHGLDGEDVSAPLNWNIFQKDINCERYYSFIHLSFQEFFAAMYYILDBGGGAGFDQD 540 Qy 514 VTRLLTEYAFSERSFLALTSRFLFGLANETSRHLEKSLCWKVSPHIKMDLLQWIQSKAQ 573 Db 541 VTRLLTEYAFSERSFLALTSRFLFGLANETRSHLEKSLCWKVSPHIKMDLLQWIQSKAQ 573 Db 541 VTRLLTEYAFSERSFLALTSRFLFGLANETRSHLEKSLCWKVSPHIKMDLLQWIQSKAQ 600 Cy 574 SDGSTLQQGSLEFFSCLYEIQREEFIQQALSHPQVIVVSNIASKWHWVSSFCLKRCRGA 633 Cy 575 SDGSTLQQGSLEFFSCLYEIQREEFIQQALSHPQVIVVSNIASKWHWVSSFCLKRCRGA 633 Db 601 SDGSTLQQGSLEFFSCLYEIQREEFIQQALSHPQVIVVSNIASKWHWVSSFCLKRCRSA 660	Qy 634 QVLHLYGATYSADGEDRARCSAGAHTLIVQLRPERTVLLDAYSEHLAAALCTNPNLIELS 693 Db 661 QVLHLYGATYSADGEDRARCSAGAHTLIVQL-PERTVLLDAYSEHLAAALCTNPNLIELS 719 Qy 694 LYRNALGSRGVKLLCQGLRHPNCKLQNLRLRRR1SSAGEDLSAALIANKNLTRMDLSG 753 Db 720 LYRNALGSRGVKLLCQGLRHPNCKLQNLRLRRRSISSAACEDLSAALIANKNLTRMDLSG 779	Qy 754 NGVGFPGMALLCEGLRHPQCRLQMIQLRKCQLESGACQEMASVLGTNPHLVELDLTGNAL 813 Db 780 NGVGFPGMALLCEGLRHPQCRLQMIQLRKCQLESGACQEMASVLGTNPHLVELDLTGNAL 839 Qy 814 EDLGLRLCQGLRHPVCRLRTLMLKICRLTAAACDELASTLSVNQSLRELDLSLNBLGDL 873 Db 840 EDLGLRLCQGLRHPVCRLRTLMLKICRLTAAACDELASTLSVNQSLRELDLSLNBLGDL 873 Db 840 EDLGLRLCQGLRHPVCRLRTLMLKICRLTAAAADELASTLSVNQSLRELDLSINBLGDL 899	QY 874 GYLLLCEGLRHPTCKLQTLRLGICRLGSAACEGLSVVLQANHNLRELDLSFNDLGDWGLW 933 Db 900 GVLLLCEGLRHPTCKLQTLRLGICRLGSAACEGLSVVLQANHNLRELDLSFNDLGDWGLW 959 QY 934 LLAEGLQHPACRLQYLMLDSCGLTAXACENLYFTLGINQTLTDLYLTNNALGDTGVRLLC 993		RESULT 6 US-10-407-866-68 Sequence 68, Application US/10407866 Fublication No. US20040002593A1 GENERAL INFORMATION: APPLICANT: Read, John C. APPLICANT: Godzik, Adam	; TITLE OF INVENTION: PADD Domain-Containing Polypeptides, ; TITLE OF INVENTION: Encoding Nucleic Acids, and Methods of Use ; FILE REFERENCE: 66654-10 (LJ 5755) ; CURRENT APPLICATION NUMBER: US/10/407,866 ; CURRENT APPLICATION NUMBER: US/10/407,866	; FRICK AFFICATION NUMBER: US 50/3/0,538; ; PRICR FILING DATE: 2002-04-04 ; NUMBER OF SEQ ID NOS: 129 ; SOFFWARE: FastSEQ for Windows Version 4.0 : SEQ ID NO 68	; LENGTH: 1027 ; TYPE: PRT ; ORGANISM: Homo sapiens US-10-407-866-68	888	OY 1 MLRTAGRDGLCRLSTYLEBLEAVBLKKFKLYLGTATELGBGKIPWGSMBKAGPLEMAQLL 60

```
TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                         RESULT 8
US-10-407-866-90
                                                                                                                                                                                                                                                                                                                       US-10-407-866-90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                      874
                                         900
                                                                                             994
                                                                                                              963
      840
                                                                           920
                                                                                                                                                                                                                                                                                             LENGIH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                            ò
                  ઠ
                                      g
                                                         Š
                                                                         q
                                                                                             δ
                                                                                                             ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          693
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           814 EDLGLRLLCQGLRHPVCRLRTLWLKICRLTAAACDELASTLSVNQSLRELDLSINELGDL 873
                                                                                                                                                                                                                                                                                                                                                                                                                                                  540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     600
                                                                                                                                                                                                                                                                                                                                                                                                                                 513
                                                                                                                                                                                                                                                                                                                         333
                                                                                                                                                                                                                                                                                                                                  BILGFSEAERKEYFYKYFHNAEQAGQVFNYVRDNEPLFTMCFVPLVCWVVCTCLQQQLEG 393
                                                                                                                                                                                                                                                                                                                                                                      453
                                                                                                                                                                                                                                                                                                                                                                                                               480
                                                                                                                                                                                             61 ITHFGPEEAWRLALSTFERINRKDLWERGQREDLVRDTPPGGPSSLGNQSTCLLEVSLVT 120
                                                                                                                                                                                                                153
                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                   213
                                                                                                                                                                                                                                                                                     QGRFDYLFYINCREMNQSATECSMQDLIFSCWPEPSAPLQELIRVPERLLFILDGFDELK 273
                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                             96
                                                                                                                                                                                                                                                                                                                                                                                                        VTRLITEYAFSERSFLALISBFLFGLINBETESHLEKSLCWKVSPHIKMDLLQWIQSKAQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SDGSTLOOGSLEFFSCLYEIQEEEFIQOALSHFQVIVVSNIASKMEHMVSSFCLKRCRSA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  QVLHLYGATYSADGEDRARCSAGAHTLLVQLRPERTVLLDAYSEHLAAALCTNPNLIELS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGLLRQTSRTTTAVYMLYLLSLMQPKPGAPRLQPPPNQRGLCSLAADGLWNQKILFEEQD
                                                                                                                                                                                                                                                                                                                                                                                                                                 LRKHGLDGEDVSAFLNWNIFQKDINCERYYSFIHLSFQEFFAAMYYILDEGEGGAGPDQD
                                                                                                                                                                                                                                                                                                                                                                                                                                           LYRNALGSRGVKLLCQGLRHPNCKLQNLRLKRCRISSSACEDLSAALIANKNLTRMDLSG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NGVGFPGMMLLCEGLRHPQCRLQMIQLRKCQLESGACQEMASVLGTNPHLVELDLTGNAL
                                                                                                                                                                                                                          1 MLRTAGRDGLCRISTYLEBLEAVELKKFKLYLGTATELGEGKIPWGSMEKAGPLEMAQLL
                                                                                                                                                         MLRTAGRDGLCRLSTYLBELEAVBLKKFKLYLGTATELGEGKIPWGSMEKAGPLEMAQLL
                                                                                                                                                                                                                ---DPQETYRDYVRRKFRLMEDRNARLGECVNLSHRYTRLLLVKEHSNPMQVQQQLLDTG
                                                                                                                                                                                                                                                    RGHARTVGHQASPIKIBTLFBPDBERPEPPRTVVMQGAAGIGKSMLAHKVMLDWADGKLF
                                                                                                                                                                                                                                                             PSFHDPQGPWCLCWEEKRPTELLLNSLIRKKLLPELSLLITTRPTALEKLHRLLEHPRHV
                                                                                                                         Gaps
                                                                                                       Length 1004;
                                                                                                                         85;
                                                                                                                                                                              61 ITHFGPEEAWRLALSTFERINRKDLWERGQREDLVR-------
                                                                                                                         1; Indels
length
                                                                                                         DB 15;
                                                                                                       Score 5077.5;
Pred. No. 0;
0; Mismatches
TITLE OF INVENTION: No. US20040005560A1el is FILER REFERENCE: HI-A0106
CURRENT APPLICATION NUMBER: US/10/108,260A
CURRENT FILING DATE: 2002-03-27
NUMBER OF SEQ ID NOS: 5458
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 3161
US20040005560Alel
                                                                                                        Query Match 92.8%;
Best Local Similarity 91.9%;
Matches 976; Conservative 0
                                                                       TYPE: PRT
ORGANISM: Homo sapiens
                                                                                       US-10-108-260A-3161
                                                              1004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   754
                                                                                                                                                                                                                                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                               334
                                                                                                                                                                                                                                                                                                                                                                                361
                                                                                                                                                                                                                                                                                                                                                                                                 394
                                                                                                                                                                                                                                                                                                                                                                                                                                    454
                                                                                                                                                                                                                   97
                                                                                                                                                                                                                                                                                         214
                                                                                                                                                                                                                                                                                                                             274
                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                       154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                              d
                                                                                                                                                                                                                                                                                                                                                                                             상
음
                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                               ò
                                                                                                                                                                                                ద
                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                         ò
                                                                                                                                               ò
                                                                                                                                                             d
```

```
480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FNYVRDNEPLFTMCFVPLVCWVVCTCLQQQLEGGGLLRQTSRTTTAVYMLYLLSLMQPKP 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    120
                                                                                                                                                        962
                                                                                                                        993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ITHEGEEAWRIALSTFERINKODIWERGOREDLVRDPOETYRDYVRKFRIMEDRNARL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GECVNLSHRYTRLLLVXEHSNPMQVQQQLLDTGRGHARTVGHQASPIXIETLFEFDEERP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BPPRIVVMQGAAGIGKSMLAHKVMLDWADGKLFQGRFDYLFYINCREMNQSATECSMQDL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IPSCWPEPSAPLOELIRVPERLLFIIDGFDELKPSFHDPQGPWCLCWEEKRPTELLLNSL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301 IRKKLLPELSLLITTRPTALEKLHRLLEHPRHVEILGFSEAERKEYFYKYFHNAEQAGOV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   934 LLAEGLQHPACRLQKLWLDSCGLTAKACENLYFTLGINQTLTDLYLTNNALGDTGVRLLC
                                                                                                                                             1 MLRTAGRDGLCRISTYLEBLEAVELKKFKLYLGTATELGEGKIPWGSMEKAGPLEMAQLL
GVLLLCEGLRHPTCKLQTLRLGICRLGSAACEGLSVVLQANHNLRELDLSFNDLGDWGLM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;
0
                                                                                                                                                                                                                                                                                                        Sequence 90, Application US/10407866;
Sequence 90, Application US/10407866;
Publication No. US20040002593A1
GENERAL INFORMATION:
APPLICANT: Reed, John C.
TILLE OF INVENTION: PAAD Domain-Containing Polypeptides,
TILLE OF INVENTION: PAAD Domain-Containing Polypeptides,
TILLE OF INVENTION: BADD DOMAIN-CONTAINING ADDITIONS OF SECOURAGE.
FILE REPERBACE: 66654-10(LJ 5755)
CURRENT APPLICATION NUMBER: US/10/407,866
CURRENT PILING DATE: 2003-04-04
PRIOR FILING DATE: 2003-04-04
PRIOR FILING DATE: 2002-04-04
NUMBER OF SEQ ID NOS: 129
SEQ ID NOS: 129
SEQ ID NOS: 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   635;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 15; Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                           KRLSHPGCKLRVLWLFGMDLNKWTHSRLAALRVTKPYLDIGC 1035
                                                                                                                                                                                                               Query Match 61.5%; Score 3364; DB 15; Best Local Similarity 100.0%; Pred. No. 6e-292; Matches 635; Conservative 0; Mismatches 0;
```

Qy 849 ELASTLSVNQSLRELDLSLNELGDLGYLLLCEGLRHPTCKLQTLRLGICRLGSAACEGLS 908 Db 421 ELASTLSVNQSLRELDLSLNELGDLGYLLLCEGLRHPTCKLQTLRLGICRLGSAACEGLS 480 Qy 909 VVLQANHNLRELDLSRNELGBQCLWLLAEGLQHPACRLQKLWLDSCGLTAKACENLYFTL 968 Db 481 VVLQANHNLRELDLSFNDLGDWGLWLLAEGLQHPACRLQKLWLDSCGLTAKACENLYFTL 540 Qy 969 GINQTLTDLXLTNNALGBTGVRLLCKRLSHPGCKLRVLWLFGWDLNKMTHSRLAALRVTK 540 Qy 969 GINQTLTDLXLTNNALGBTGVRLLCKRLSHPGCKLRVLWLFGWDLNKMTHSRLAALRVTK 600 Db 541 GINQTLTDLXLTNNALGBTGVRLLCKRLSHPGCKLRVLWLFGWDLNKMTHSRLAALRVTK 600 Dv 1029 PXL 1031	SULT SULT 10-4 Subjust	FEEQDLRKHG	OY 489 SFOEFFAAMYYILDEGEGGAGPDODVTRLLTEYAFSERSFLALTSRFLFGLLNEETRSHL 548	121 EKSLCWKVSPHIKMDLLOWIQSKAQSDGSTLQQGSLEFFSCLYEIQEBEFIQQALSHFQV 609 IVVSNIASKMEHMVSSFCLKRCRSAQVLHLYGATYSADGEDRARCSAGAHTLLVQLRPER	Db 181 IVVSNIASKMEHMVSSFCLKRCRSAQVLHLYGATYSADGEDRARCSAGAHTLLVQLRPER 240 Qy 669 TVLLDAYSEHLAAALCTNPNLIELSLYRNALGSRGYKLLCQGLRHPNCKLQNLRLKRCRI 728 [OY 729 SSSACEDLSAALIANKNITRWDLSGNGVGFPGWMLLCEGLRHPQCRLQMIQLRKCQLESG 788 	789 ACQEMASVLGTNPHLVELDLTGNALEDLGLRLLCQGLRHPVCRLRTLWLKICRLTAAACD 	Qy 849 ELASTLSVNOSLRELDLSLNELGDLGVLLLCEGLRHPTCKLQTLRLGICRLGSBACEGLS 908
QY 481 RYYSFIHLSFQEFFAAMYYILDEGEGGAGPDQDVTRLLTEYAFSERSFLALTSRFLFGLL 540 DD 481 RYYSFIHLSFQEFFAAMYYILDEGEGGAGPDQDVTRLLTEYAFSERSFLALTSRFLFGLL 540 QY 541 NEETRSHLEKSLCWKVSPHIKMDLLQMIQSKAQSDGSTLQQGSLEFFSCLYEIQEEEFIQ 600 DD 541 NEETRSHLEKSLCWKVSPHIKMDLLQMIQSKAQSDGSTLQQGSLEFFSCLYEIQEEEFIQ 600 QY 601 QALSHPQVIVVSNIASKMEHMVSSFCLKRCRSAQV 635 DD 601 QALSHPQVIVVSNIASKMEHMVSSFCLKRCRSAQV 635 DD 601 QALSHPQVIVVSNIASKMEHMVSSFCLKRCRSAQV 635	RESULT 9 US-09-965-621-64 Sequence 64, Application US/09965621 Publication No. US2003007769941 Sequence 64, Application US/09965621 Publication No. US2003007769941 APPLICANT: Reed, John C. APPLICANT: Godaik, Adam APPLICANT: Godaik, Adam APPLICANT: Pawlowski, Krzysztof APPLICANT: Pawlowski, Krzysztof APPLICANT: Steinik, Christian TITLE OF INVENTION: PAAD Domain-Containing Polypeptides, TITLE OF INVENTION: Bacoding Nucleic Acids, and Methods of Use FILE REFERENCE: P-LJ 4816 CURRENT APPLICATION NUMBER: US 09/671,760 PRIOR FILING DATE: 2000-09-25 PRIOR FILING DATE: 2000-09-26 NUMBER OF SEQ ID NOS: 64 SOFTWARE: PastSEQ for Windows Version 4.0 LENGTH: 63 LENGTH: 63 TYPE: PRT CORGANISM: Homo sapiens US-09-965-621-64	Query Match Best Local Similarity 100.0%; Pred. No. 5.7e-274; Matches 603; Conservative 0; Mismatches 0; Indels 0; Gaps 0; Qy 429 PNQRGLCSLAADGLWNQKILPERQDLRHGLDGEDVSAFLNMNIRQKDINCERYYSFIHL 488	Db PNQRGLCSLANDGLWNQKILFEEQDLRKHGLDGEDVAFLNNNIFQCINCERYPETHL 60	549 EKSLCWKVSPHIKMDLLQWIQSKAQSDGSTLQQGSLEFFSCLYEIQEBEFIQQALSHFQV	Oy 609 IVVSNIASKWEHMVSSFCLKRCRSAQVLHLYGATYSADGEDRARCSAGAHTLLVQLRPER 668	Db 241 TVLLDAYSEHLAAALCTNPNLIELSLYRNALGSRGVKLLCGGIRHPINCKLQNLRLKRCRI 300 Qy 729 SSSACEDLSAALIANKNLTRMDLSGNGVGPPGWMLLCEGLRHPQCRLQMIQLRKCQLESG 788	301 SSSÄCEDLSÄÄLIANKNITRMDLSGNGVGFPGMMLLCEGLRHPQCRLÖMIQLRKCQLESG 789 ACQEMASVLGTNPHLVELDLTGNALEDLGLRLLCQGLRHPVCRLRTLMLKICRLTAAAACD	Db 361 ACQEMASVLGTNPHLVELDLTGNALEDLGLRLLCQGLRHPVCRLRTLWLKICRLTAAACD 420

us-10-781-294-24.rapb

셤 ò 셤

ö ద 8

```
APPLICANT: Zerhusen, Bryan D.
TITLE OF INVENTION: Therapeutic Polypeptides, Nucleic Acids Encoding Same, and Metho-
FILE REFERENCE: 21402-377 B
                                                                                                                                                                                                                                                                      540
                                                                           908
                                                                                                                          480
                                                                                                                                                                           968
                                                                                                                                                                                                        361 ACQEMASVLGTNPHLVBLDLTGNALEDLGLRLLCQGLRHPVCRLRTLWLKICRLTAAACD
                                                                           ELASTLSVNQSLRELDLSLNELGDLGVLLLCEGLRHPTCKLQTLRLGICRLGSAACEGLS
                                                                                                        909 VVLQANHNLRELDLSFNDLGDWGLWLLAEGLQHPACRLQKLWLDSCGLTAKACENLYFTL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILE REFERENCE: 2140-31, CURRENT APPLICATION NUMBER: 00/295, 607
PRIOR APPLICATION NUMBER: 00/295, 607
PRIOR APPLICATION NUMBER: 60/295, 607
PRIOR PILING DATE: 2001-06-04
PRIOR PLILING DATE: 2001-06-04
PRIOR PLILING DATE: 2001-06-04
PRIOR PLILING DATE: 2001-06-04
PRIOR PLILING DATE: 2001-06-06
PRIOR PLILING DATE: 2001-06-06
PRIOR PLILING DATE: 2001-06-06
PRIOR PLILING DATE: 2001-06-16
PRIOR PLILING DATE: 2001-06-17
PRIOR PLILING DATE: 2001-06-15
PRIOR PLILING DATE: 2001-06-15
PRIOR APPLICATION NUMBER: 60/299,949
PRIOR PLILING DATE: 2001-06-15
PRIOR APPLICATION NUMBER: 60/299,949
PRIOR APPLICATION NUMBER: 60/299,949
PRIOR APPLICATION NUMBER: 60/299,949
PRIOR APPLICATION NUMBER: 60/299,949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-10-162-335-22; Application US/10162335; Sequence 22, Application US/20040009480A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MacDougall, John R.
Malyankar, Uriel M.
Millet, Isabelle
Padigaru, Muralidhara
Pena, Carol B. A.
Rastelli, Luca
Stone, David J.
Stone, David J.
Spytek, Kimberly A.
Vernet, Corine A. M.
Vernet, Corine A.
Voss, Edward Z.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Edinger, Shlomit R. Gangolli, Esha A. Gerlach, Valerie Gorman, Linda Guo, Xiaojia (Sasha) Hjalt, Tord
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Baumgartner, Jason C.
Boldog, Ferenc L.
Casman, Stacie J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Anderson, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Kekuda, Ramesh
                                                                                                                                                                                                                                                                                                                                                                                           1029 PYL 1031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Li, Li
                                                                                                                                                                                                                                                                                                                                                                                                                                             PYL 603
                                                                                                                                                                                                                                                                                                                                                                                                                                               601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
APPLICANT:
                                                                                                849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT
                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                          g
                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                              ò
                                                                                                                                    8
                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              789 ACQEMASVLGTNPHLVELDLTGNALEDLGLRLLCQGLRHPVCRLRTLWLKICRLTAAACD 848
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SSSACEDISAALIANKNITRMDLSGNGVGFPGWMLLCEGLRHPQCRLQMIQLRKCQLESG 788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  669 TVLLDAYSEHLAAALCTNPNLIELSLYRNALGSRGVKLLCQGLRHPNCKLQNLRLKRCRI 728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61 SFQEFFAAMYYILDEGEGGAGFDQDVTRLLTEYAFSERSFLALTSRFLFGLINEETRSHL 120
                                                                                                                                                                           969 GINOTLIDLYLINNALGDIGVRLLCKRLSHPGCKLRVLWLFGMDLNKMTHSRLAALRVTK 1028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                        121 ELASTLSVNQSLRELDLSLNELGDLGVLLLCEGLRHPTCKLQTLRLGICRLGSAACEGLS 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EKSLOWKVSPHIKMDLLQWIQSKAQSDGSTLQQGSLEFFSCLYBIQEEBFIQQALSHFQV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    609 IVVSNIASKMEHMVSSFCLKRCRSAQVLHLYGATYSADGEDRARCSAGAHTLLVQLRPER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SFORFFAAMYYILDBGBGGAGPDQDVTRLLTEYAFSERSFLALTSRFLFGLLNEFTRSHL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       429 PNORGICSIAADGIMNQKILFEEQDIRKHGLDGEDVSAFLNMNIFQKDINCERYYSFIHL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                VVLQANHNLRELDLSFNDLGDWGLWLLAEGLQHPACRLQKLWLDSCGLTAKACENLYFTL
                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-10-781-294-64

US-10-781-294-64

Sequence 64, Application US/10781294

Publication No. US20040142374A1

GENERAL INFORMATION:

APPLICANT: Reed, John C.

APPLICANT: Reed, John C.

APPLICANT: Pawlowski, Krzysztof

APPLICANT: Pawlowski, Krzysztof

APPLICANT: Stenino, Loredana

APPLICANT: Stenino, Loredana

APPLICANT: Stenik, Christian

APPLICANT: Stenik, Christian

APPLICANT: Stenik, Christian

APPLICANT: Benerkino: Pablo Domain Containing Polypeptides,

TITLE OF INVENTION: Bacoding Nucleic Acids, and Methods of Use

FILE REFERENCE: P.LJ 4816

CURRENT FILING DATE: 2004-02-17

PRIOR FILING DATE: 2001-09-25

PRIOR FILING DATE: 2001-09-26

NUMBER OF SEQ ID NOS: 64

SEQ ID NO 64

LEMETH: 603

LEMETH: FOR THE CANDER CAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 603;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
57.8%; Score 3163; DB 16;
Best Local Similarity 100.0%; Pred. No. 5.7e-274;
Matches 603; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: PRT
CRGANISM: Homo sapiens
US-10-781-294-64
                                                                                                                                                                                                                                                                                                PYL 1031
                                                                                                                                                                                                                                                                                                                                               PYL 603
                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 11
US-10-781-294-64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ч
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         549
                                                                                                                                                                                                                                                                                                   1029
                                                                                                                                                                                                                                                                                                                                                  601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  õ
```

g ò 임 ò

ò 셤 ò

```
CURRENT FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           硆
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                 432
                                                                                                                                                                                                                                                                               492
                                                                                                                                                                                                                                                                                                                120
                                                                                                                                                                                                                                                                                                                                              552
                                                                                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                                                               612
                                                                                                                                                                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                731
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               791
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                    61 GLCSLAADGLWNQXILFEEQDLRKHGLDGEDVSAFLNWNIFQKDINCERYYSFIHLSFQE
                                                                                                                                                                                                                                                                                                                                             FFAAMYYILDEGEGGAGPDQDVTRLLTBYAFSERSFLALTSRFLFGLLNEETRSHLEKSL
                                                                                                                                                                                                                                                                                                                                                                                                           CWKVSPHIKMDLLQWIQSKAQSDGSTLQQGSLEFFSCLYEIQEEFIQQALSHFQVIVVS
                                                                                                                                                                                                                                                                                                                                                                                                                                     CHKVSPHIKMDLLQHIQSKAQSDGSTLQQGSLEFFSCLYEIQEBEFFIQQALSHFQVIVVS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241 NIASKMEHMVSSFCLKRCRSAQVLHLYGATYSADGEDRARCSAGAHTLLVQLRPERTVLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DAYSEHLAAALCTNPNLIELSLYRNALGSRGVKLLCQGLRHPNCKLQNLRRLKRCRISSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LASTLSVNQSLRELDLSLNELGDLGVLLLCEGLRHPTCKLQTLRRLGICRLGSAACEGLS
                                                                                                                                                                                                             MCFVPLVCWVVCTCLQQQLEGGGLLRQTSRTTTAVYMLYLLSLMQPKPGAPRLQPPNQR
                                                                                                                                                                                                                                  1 MCFVPLVCWVVCTCLQQQLEGGGLLRQTSRTTTAVYMLXLLSLMQPKPGAPRLQPPPNQR
                                                                                                                                                                                                                                                                            GLCSLAADGLWNQKILFEEQDLRKHGLDGEDVSAFLNMNIFQKDINCERYYSFIHLSFQE
                                                                                                                                                                                                                                                                                                                                                               121 FFAAMYYILDEGEGGAGPDQDVTRLLTEYAFSERSFLALTSRFLFGLLNEETRSHLEKSL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NI ASKMEHMVSSFCLKRCRSAQVLHLYGATYSADGEDRARCSAGAHTLLVQLRPERTVLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACEDLSAALIANKNLTRMDLSGNGVGFPGMMLLCEGLRHPQCRLQMIQLRKCQLESGACO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMASVLGTNPHLVELDLTGNALEDLGLRLLCQGLRHPVCRLRTLW--LKICRLTAAACDE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LASTLSVNQSLRELDLSLNELGDLGVLLLCEGLRHPTCKLQTL-RLGICRLGSAACEGLS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DAYSEHLAAALCTNPNLIELSLYRNALGSRGVKLLCQGLRHPNCKLQNL-RLKRCRISSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACEDISAALIANKNLTRMDLSGNGVGFPGMMLLCEGLRHPQCRLQMIQLRKCQLESGACQ
                                                                                                                                                                                  Gaps
                  PALM:
                                                                                                                                                                                  4
                    ö
                                                                                                                                                Length 582;
                  File Wrapper
                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: THORNTON, Michael; HAFALIA, April J.A.;
APPLICANT: TU, Dyung Aina M.; ARVIZU, Chandra S.;
APPLICANT: SHARNAKAR, Anita; LU, Yan;
APPLICANT: WARREN, Bridget A.; BAUGHN, Mariah R.;
APPLICANT: TANG, Y. Tom; LEE, Ernestine A.;
APPLICANT: TANG, Y. Tom; LEE, Ernestine A.;
APPLICANT: TANG, TANG, Monique G.; RAMKUMAR, Jayalaxmi;
APPLICANT: TANG, Farrah A.; GANDHI, Ameena R.;
APPLICANT: GIETZEN, Kimberly J.; CHAWLA, Narinder K.;
APPLICANT: THANGAVELU, Kavitha; ELLIOTT, Vicki S.
APPLICANT: MARQUIS, Joseph P.
TILLE OF INVENTION: NUCLEIC ACID-ASSOCIATED PROTEINS;
FILE REFERENCE: PI-0368 USN
CURRENT APPLICATION NUMBER: US/10/467,397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VVLQANHNLRELDLSFNDLGDWGLWLLAEGLQHPACRLQKLW 582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VVLQANHNLRELDLSFNDLGDWGLWLLAEGLQHPACRLQKLW 950
                                                                                                                                                                                ;
0
                                                                                                                                                DB 15;
                                                                                                                                           Ouery Match 54.9%; Score 3005; DB 15; Best Local Similarity 99.3%; Pred. No. 7.8e-260; Matches 578; Conservative 0; Mismatches 0;
                  See
PRIOR FILING DATE: 2001-06-26
Remaining Prior Application data removed
NUMBER OF SEQ ID NOS: 201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 9, Application US/10467397
Publication No. US20040137448A1
GENERAL INFORMATION:
                                                                               TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                US-10-162-335-22
                                                                LENGTH: 582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 13
US-10-467-397-9
                                             SEQ ID NO 22
                                                                                                                                                                                                               373
                                                                                                                                                                                                                                                                              433
                                                                                                                                                                                                                                                                                                                                             493
                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        541
                                                                                                                                                                                                                                                                                                                                                                                                             553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                         쉽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                        유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
```

```
950 WLDSCGLTAKACENLYFTLGINQTLTDLYLTNNALGDTGVRLLCKRLSHPGCKLRVLWLF 1009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61 ALTSRFLFGLINEETRSHLEKSLCWKVSPHIKMDLLQWIQSKAQSDGSTLQQGSLEFFSC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               470 MNIFQKDINCERYYSFIHLSFQEFFAAMYYILDEGEGGAGPDQDVTRLLTEYAFSERSFL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181 RARCSAGAHTLLVOL-PERTVLLDAYSEHLAAALCTNPNLIELSLYRNALGSRGVKLLCO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         240 GLRHPNCKLQNLRLKRCRISSSACEDLSAALIANKNLTRMDLSGNGVGFPGMMLLCEGLR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        360 CRLRITEWLKICRLIABAACDELASTLSVNQSLRELDLSLNELGEDLGVLLLCEGLRHPTCKL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                480 WLDSCGLTAKACENLYFTLGINQTLTDLYLTNNALGDTGVRLLCKRLSHPGCKLRVLWLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 MNIFQKDINCERYYSFIHLSFQEFFAAMYYILDBGEGGAGPDQDVTRLLTEYAFSERSFL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           530 ALTSRFLFGLLNEETRSHLEKSLCWKVSPHIKMDLLQWIQSKAQSDGSTLQQGSLEFFSC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LYEIQEEBFIQQALSHFQVIVVSNIASKMEHMVSSFCLKRCRSAQVLHLYGATYSADGED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RARCSAGAHTLLVQLRPERTVLLDAYSEHLAAALCTNPNLIELSLYRNALGSRGVKLLCQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      710 GLRHPNCKLONLRLKRCRISSSACEDLSAALIANKNLTRMDLSGNGVGFPGMMLLCEGLR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 770 HPQCRLQMIQLRKCQLESGACQEMASVLGTNPHLVELDLTGNALEDLGLRLLCQGLRHPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        300 HPQCRLQMIQLRKCQLESGACQEMASVLGTNPHLVELDLTGNALEDLGLRLLCQGLRHPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CRLRTLWLKICRLTAAACDELASTLSVNQSLRELDLSLNELGDLGVLLLCEGLRHPTCKL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QTLRLGICRLGSAACEGLSVVLQANHNLRELDLSFNDLGDWGLWLLAEGLQHPACRLQKL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       420 QTLRLGICRLGSAACEGLSVVLQANHNLRELDLSFNDLGDWGLWLLAEGLQHPACRLQKL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; NAME/KEY: misc feature
; OTHER INFORMATION: Incyte ID No: 429930CD1
US-10-467-397-9
        1010 GMDLNKMTHSRLAALRVTKPYLDIGC 1035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               540 GMDLNKMTHSRLAALRVTKPYLDIGC 565
2003-08-06
                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                  LENGTH: 565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local S:
Matches 565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 830
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              890
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          290
```

ä

529

9

589

649 180 709 239 769 299 829 359 889 419 949 479

```
912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241 NIASKWEHMVSSFCLKRCRSAQVLHLYGATYSADGEDRARCSAGAHTLLVQLRPERTVLL 300
                                                                                                                                                                                                                                                                                  DAYSEHLAAALCTNPNLIELSLYRNALGSRGVKLLCQGLRHPNCKLQNLRLKRCRISSSA 732
                                                                                                                                                                                                                                                                                                                                                                                  CEDLSAALIANKNLTRMDISGNGVGFPGMMLLCEGIRHPQCRLQMIQLRKCQLESGACQE 792
                                                                                                                                                                                                                                                                                                                                                                                                                 613 NIASKMEHMVSSFCLKRCRSAQVLHLYGATYSADGEDRARCSAGAHTLLVQLRPERTVLL 672
                    612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              11 CRLSTYLEBLEAVELKKFKLYL-GTATELGEGKIPWGSMEKAGPLEMAQLLITHFGPEEA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
43.8%; Score 2396; DB 13; Length 1034;
Best Local Similarity 46.1%; Pred. No. 7e-205;
Matches 495; Conservative 175; Mismatches 303; Indels 100; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  408 -----ikichltäääcdeläs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              853 TLSVNOSLRELDISLANELGDIGVLLLCEGIRHPTCKLQTLRLGICRLGSAACEGLSVVLQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 793 MASVLGTNPHLVELDLTGNALEDLGLRLLCQGLRHPVCRLRTLWLKICRLTAAACDELAS
                                                                                  CWKVSPHIKMDLLQWIQSKAQSDGSTLQQGSLEFFSCLYELQEEEFIQQALSHFQVIVVS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 5, Application US/10127516
; Sequence 5, Application US/10127516
; Publication No. USCO20187922A1
; GENERAL INFORMATION:
APPLICANT: Bertin, John
; APPLICANT: Manji, Gulam A.
TITLE OF INVENTION: NOVEL MOLECULES OF THE PYRIN DOMAIN
; TITLE OF INVENTION: PROTEIN FAMILY AND USES THEREOF
; TITLE OF INVENTION: PROTEIN FAMILY AND USES THEREOF
; TITLE OF INVENTION: NOVEL MOLECULES OF THE PYRIN DOMAIN
; TITLE OF INVENTION: NOVEL MOLECULES OF THEREOF
; FILE REPRESENT 2010-02-03
; CURRENT FILING DATE: 2002-07-23
; PRIOR APPLICATION NUMBER: US 09/964,955
; PRIOR FILING DATE: 2001-09-26
; PRIOR FILING DATE: 2000-09-01
; RIOR PRIOR OATE: 2000-09-01
; RIOR FILING DATE: 2000-09-01
; RIOR FILING DATE: 2000-09-01
; RIOR FILING DATE: 2000-02-17
; NUMBER OF SEQ ID NOS: 17
; SEQ ID NOS: 17
; SEQ ID NOS: 17
; IRNATH: 10.14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                70 WRLALSTFERINRKDLWERGORED-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   913 ANHNLRELDLSFNDLGDWGLWLLAEGLQHPACRLQKLW 950
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  484 ANHNLRELDLSFNDLGDWGLWLLAEGLQHPACRLQKLW 521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; ORGANISM: Homo sapiens
US-10-127-516-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: PRT ORGANISM:
                                                                                                                                                                                                                                                                                                 673
                                                                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                                                 733
                                                                                                  553
493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                      셤
                                                                                               ò
                                                                                                                                           g
                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Padigaru, Muralidhara
APPLICANT: Padigaru, Muralidhara
APPLICANT: Peturajan, Mera
APPLICANT: Peturajan, Mera
APPLICANT: Peturajan, Mera
APPLICANT: Restell; Luca
APPLICANT: Stimets. Richard A.
APPLICANT: Stimets. Richard A.
APPLICANT: Stone, David J.
APPLICANT: Stone, David J.
APPLICANT: Vernet, Corine A.
APPLICANT: Vernet,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                373 MCFVPLVCWVCTCLQQQLEGGGLLRQTSRTTTAVYMLYLLSLMQPKPGAPRLQPPNQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 MCFVPLVCWVVCTCLQQQLEGGGLLRQTSRTTTAVYMLYLLSLMQPKRGAPRLQPPPNQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         57;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 15; Length 521;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
49.2%; Score 2694.5; DB 1
Best Local Similarity 90.1%; Pred. No. 4.3e-232;
Matches 521; Conservative 0; Mismatches 0;
                                 Sequence 24, Application US/10162335 Publication No. US20040009480A1 GENERAL INFORMATION:
                                                                                                                              Bungather, Jason C. Boldog, Ferenc L. Casman, Stacie J. Edinger, Shlomit R. Gangolli, Esha A. Gerlach, Valerie Gorman, Linda Gorman, Linda Kekuda, Ramesh Kekuda, Ramesh
                                                                                                                                                                                                                                                                                                                                                                                       Li, Li
MacDougall, John R.
Malyankar, Uriel M.
Millet, Isabelle
                                                                                                            APPLICANT: Anderson, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-162-335-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQ ID NO 24
LENGTH: 521
                                                                                                                                                                                                               APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
```

Search completed: February 8, 2005, 15:02:43 Job time : 165 secs

Lhis Page Blank (uspto)

prote prote prote

OM protein

Run on:

Sequence:

Minimum DB Maximum DB

Database

Result No.

Searched:

```
T17255
hypothetical protein DKFzp58601822.1 - human (fragment)
C;Species: Homo sapiens (man)
C;Species: Homo sapiens (man)
C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 09-Jul-2004
C;Accession: T1725
R;Koehrer, K.; Beyer, A.; Mewes, H.W.; Gassenhuber, J.; Wiemann, S.
submitted to the Protein Sequence Database, September 1999
A;Rochrence number: 218722
A;Accession: T17255
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-1192 < KOB>
A;Cross-references: UNIPROT: Q9C000; EMBL: AL117470
C;Genetics:
                                         hypochetical prote
hypochetical prote
thr protein - frui
hypochetical prote
LRR-containing F-b
disease resistance
probable disease r
probable disease r
probable disease r
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          133 LLLVKEH---SNPMQVQQ--QLLDTGRGHARTVGHQASPIKIETLFEPDEERPEPPRTVV 187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               188 MQGAAGIGKSMLAHKVMLDWADGKLFQGRFDYLFYINCREMNQSATECSMQDLIFSCWPE 247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             544 TRSHLEKSLCWKVSPHIKMDLLQWIQSKAQSDGSTLQQGSLEFFSCLYEIQEEEFIQQAL 603
                                                                                                                                                       probable disease r
orphan G protein-c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  248 PSAPLOELIRVPERLIFIIDGFDELKPSFHDPQGPWCLCWEEKRPTELLLNSLIRKKLLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ----RDLCSLAABGIWQKKTLFSPDDLRKHGLDGAIISTFLKWGILQEH-PIPLSYSFIH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ELSLLITTRPTALEKLHRLLEHPRHVEILGFSEAERKEYFYKYFHNAEQAGOVFNYVRDN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EPLFTMCFVPLVCWVVCTCLQQQLEGGGLLRQTSRTTTAVYMLYLLSLMQPKPGAPRLQP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PPNORGLCSLAADGLWNQKILFEEQDLRKHGLDGEDVSAFLNWNIFQKDINCERYYSFIH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LSFQEFFAAMYYILDEGEGGAGPDQ----DVTRLLJTBYAFSERSFLALTSRFLFGLLNEE
          gene wheeler i
hypothetical i
hypothetical p
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -
-
-
-
-
-
 nypothetical
                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 24.0%; Score 1314.5; DB 2; Length 1192; Best Local Similarity 39.9%; Pred. No. 2.3e-93; Matches 323; Conservative 119; Mismatches 293; Indels 75;
                                                                                                                                                                                                    ALIGNMENTS
           T113852
A85096
C84586
C84586
AE1915
T13887
T13864
T52139
T52348
G96621
E84547
E86598
934
1039
1039
271
271
1237
11286
1066
1066
957
607
                                                                                                                                                                                                                                                                                                                                                                                                       C;Genetics:
A;Note: DKFZp58601822.1
 142
140.5
140.5
139.5
137.5
137.5
135.5
135.1
135.1
134.5
134.5
134.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                343
 유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      윤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Nasopressin recept
MMC class II trans
hypothetical prote
hypothetical prote
neuronal apoptosis
hypothetical prote
RAN GTPase-activat
ran GTPase-activat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   hypochetical prote
neuronal apoptosis
hypochetical prote
hypothetical prote
myosin-I binding p
protein F28C1.3 [i
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       hypothetical prote
RNA1 homolog fugi
hypothetical prote
RAN GTPase activat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ribonuclease-angio
ribonuclease inhib
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           hypothetical prote
mater protein [imp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RNA1 protein homol
Ran GTPase activat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            T-complex-associat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   probable large ATP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                disease resistance
                                                                       February 8, 2005, 14:44:08; Search time 50 Seconds (without alignments) 1991.687 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cyclase
                                                                                                                                                                                                                                                                                                                                                                                         Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                          1 MLRTAGRDGLCRLSTYLEEL......MTHSRLAALRVTKPYLDIGC 1035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           adenylate
                                                                                                                                                                                                                        283416
          GenCore version 5.1.6 (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                   Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                 283416 segs, 96216763 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                       SUMMARIES
                                                                                                                                                                                                                                                                          Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                     - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A59000
A31858
S20597
A31857
S27880
A48843
T31665
T31668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        B97746
T52068
T52063
A45841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    T48193
T42628
F86291
T52067
T02764
C89243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A36983
T23427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       T48102
T52070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JC5300
A55481
                                                                                                                                                                           Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                            seq length: 0
seq length: 200000000
                                                                                                                   US-10-781-294-24
5472
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query
Match Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         312
545
533
506
618
789
789
1121
631
631
589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1010
                                                                                                                                                                                                                                                                                                                        PIR_79:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*
                   Copyright
                                                                                                                                                                BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Perfect score:
                                                                                                                                                               Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score
```

13

Gaps

487

427

ò

```
Aj1858
ribonuclease-angiogenin inhibitor - human
NiAlternate names: ribonuclease inhibitor, placental
NiAlternate names: ribonuclease inhibitor, placental
CjSpecies: Homo sapiens (man)
C;Date: 07-Jun-1990 #text_change 09-Jul-2004
C;Date: 07-Jun-1990 #sequence revision 0.J.; Vallee, B.L.
R;Lee, F.S.; Fox, B.A.; Zhou, H.M.; Strydom, D.J.; Vallee, B.L.
Biochemistry 27, 855-8553, 1988
A;Title: Primary structure of human placental ribonuclease inhibitor.
A;Rolecanle type: mRNA
A;Rolecance number: Sulley Structure of human ribonuclease/angiogenin inhibitor (RAI) discloss
A;Cross-references: UNIPROT: PLASS (SCH)
A;Accession: S02012; MUD: 89210799; PMID: 3243277
A;Accession: S02012
A;Accession: S0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         KOSSSSIRRIGIGACKLTSNCCBALSLAISCNPHLNSLNLVKNDFSTSGMLKLCSAFQCP 1060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              939
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     940
                                                                                                                                                                                                                                                                                                                                                                                                                                  819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             879
                                                                                                                                                                                                                                                         700
                                                                                                                                                                                                                                                                                                         669
--DVIRLLIBYAFSERSFLALTSRFLFGLINEETRSHLEKSLCWKVSPHIKMDLLQWIQS 570
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LLCGGLRHPVCRLRTLWLKICRLTAAACDELASTLSVNOSLRELDLSLNELGDLGVLLLC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BGLRHPTCKLOTLRLGICRLGSAACEGLSVVLQANHNLRELDLSFNDLGDWGLMLLAEGL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              940 QHPACKLOKLWLDSCGLTAKACENLYFTLGINOTLTDLYLTNNALGDTGVRLLCKRLSHP
                                                                                                                                DRARCSAGAHTLLVQLRPE------RTVLLDAYSEHLAAALCTNPNLIELSLYRNAL
                                                                                                                                                                                                                                                                                                                                                                                                          700 GSRGVKLLCCGGLRHPNCKLONLRLKRCRISSSACEDLSAALIANKNLTRMDLSGNGVGFP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          760 GMMLLCEGLRHPQCRLQMIQLRKCQLESGACQEMASVLGTNPHLVELDLTGNALEDLGLR
                                                                                                                                                                                                                                                         522 FIENQRSIMEVKRIDDIRLLGMKRFLFGLMNKDILKTLEVLFEYPVIPTVEQKLQHWVSL
                                                                                                     571 KĄQSDGSŢLQQGSĻEFFSCĻYĒIQĒBĒFIQQAĻSHFQVIVVSNĪASKMĒHMVSSFCĻKRÇ
                                                                                                                                                                                                   --YGATYSADGE-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    χ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Accession: S23933
A;Molecule type: protein
A;Residues: 174-195 <CRE>
R;Nadano, D.; Yasuda, T.; Takeshita, H.; Uchide, K.; Kishi,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCKLRVLWLPGMDLNKMTHSRLAALRVTKPYLDI 1033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1061 VSNLGIIGLWKQEYYARVRRQLEEVEFVKPHVVI 1094
                                                                                                                                                                                                                           RSAQVLHL------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   820
                                                                                                                                                                                                                           631
                                                                                                                                                                                                                                                                                                                               649
                                                                                                                                                                                                                                                                                                                                                                               701
                          513
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                   요
                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                         셤
                                                                   셤
                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Cyaccesion: Now move models of the control of the c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                400 TSRĮTĮAVY---MLYLLSLMOPKPGAPRLOPPPNORGLCSLAADGLWNOKILFEEODLRK 456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EAERKEYFYKYFHNAEQAGQVFNYVRDNEPLFTMCFVPLVCWVVCTCLQQQLEGGGLLRQ 399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAACDELASTLSVNOSLRELDLSLNEL----GDLGVLLLCEGL-----RHPTCKLQTLR 893
                                                                                                                                                                                                                                                                                                                                       623
                                                                                                                                                                                                                                                                                                                                                                                            843
                                                                                                                                                                                                                                                                                                                                                                                                                                          677
                                                                                                                723
                                GEREMENIFHCRLSQ--GRNLMQWVPSLQ----LLLQPHSLESLHCLYETRNKTFLTQVM 454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HGLDGEDVSAFLNMNI-FQXDINCERYYSFIHLSFQEFFAAMYYILDEGEGGAGPDQ---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            :::||:::||| |::
226 VIFFSVREIKWT-EKSSLAQLIAKECPDSWDLVTKIMSQPERLLFVIDGLDDMDSVLQHD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             345 ASRRSQLVLENISNESDRIQVFHSLIENHQLFDQCQAPSVCSLVCRALQLQKKLGKRCTL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               220 LFYINCREMNOSATECSMODLIFSCWPEPSAPLOELIRVFERLLFIIDGFDELKPSFHDP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               280 OGPWCLCWEEKRPTELLLINSLIRKKLLPELSLLITTRPTALEKLHRLLEHPRHVEILGFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HQASP-IK-IETLFEPDEERPEPPRTVVMQGAAGIGKSMLAHKVMLDWADGKLFQGRFDY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            mater protein [imported] - mouse
C;Species: Mus musculus (house mouse)
C;Date: 03-Aug-2001 #sequence_revision 03-Aug-2001 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                 QLESGAÇQEMASVLGTNPHLVELDLTGNALEDLGLRLLCQGLRHPVCRLRTLMLKICRLT
                                                                                                                                                                                                                                                                                                                                                                                                                    SHFQVIVVSNIASKWEHMVSSFCLKRCRSAQVLHLYGATYSADGEDRARCSAGAHTLLVQ
                                                                                                                                                                                   LRPERTVLLDAYSEHLAAALCTNPNLIELSLYRNALGSRGVKLLCOGLRHPNCKLONLRL
                                                                                                                                                                                                                   724 KRCRIBSSACEDLSAALIANKNLTRMDLSGNGVGFPGMMLLCEGLRHPQCRLQMIQLRKC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              : 69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 1111;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        tch 21.2%; Score 1160.5; DB 2; Length al Similarity 31.4%; Pred. No. 1.9e-81; 293; Conservative 165; Mismatches 407; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        923
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LGICRLGSAACEGLSVVLQANHNLRELDLS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local S:
Matches 293,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         457
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              734
                                                                                                                                                                                                                                                         905
                                                                                                                                                                                                                                                                                                                                                                                                            784
                                                                                                                                                                                                                                                                                                                                                                                                                                                             624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             844
                                                                                                                                                      455
                                                                                                                                                                                                         664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                        g
                                                                                                                                                                                                         ö
```

```
al Similarity 42.7
151; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                     95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 971
                                                                                                                                                                                                                                                                                                                                                                                            731
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        791
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local
Matches 15
                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                            쉱
                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C; Superfamily: ribonuclease inhibitor; leucine-rich alpha-2-glycoprotein repeat homology C; Keywords: blocked amino end; duplication
C; Keywords: blocked amino end; duplication
C; Keywords: blocked amino end; duplication
C; Keywords: leucine-rich alpha-2-glycoprotein repeat homology <LRR1>
F; 174-138/Domain: leucine-rich alpha-2-glycoprotein repeat homology <LRR2>
F; 174-195/Region: inhibitory
F; 228-25/Domain: leucine-rich alpha-2-glycoprotein repeat homology <LRR3>
F; 288-25/Domain: leucine-rich alpha-2-glycoprotein repeat homology <LRR3>
F; 289-21/Domain: leucine-rich alpha-2-glycoprotein repeat homology <LRR5>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               tissue distributic
cch. Biochem. Biophys. 312, 421-428, 1994
Title: Purification and characterization of human brain ribonuclease inhibitor.
Reference number: S48636; MUID:94311593; PMID:8037455
Accession: 848636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               671 LLDAYSEHLAAALCTNPNLIELSLYRNALGSRGVKLLCQGLRHPNCKLQNLRLKRCRISS 730
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SACEDLSAALIANKOLTRMDLSGNGVGFPGMMLLCEGLRHPQCRLQMIQLRKCQLESGAC 790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        851 ASTLSVNQSLRELDLSLNELGDLGVLLLCEGLRHPTCKLQTLRLGICRLGSAACEGLSVY 910
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          s20597
ribonuclease inhibitor - rat
ribonuclease inhibitor - rat
C;Species: Rattus norvegicus (Norway rat)
C;Species: Rattus norvegicus (Norway rat)
C;Date: 22-Nov-1993 #sequence_revision 10-Nov-1995 #text_change 09-Jul-2004
C;Accession: S20597
R;Kawanomoto, M:, Motojima, K:; Sasaki, M.; Hattori, H.; Goto, S.
B;Ochim. Biophys: Acta 1129, 335-338, 1992
A;Title: cDNA cloning and sequence of rat ribonuclease inhibitor, and tissue A;Reference number: S20597; MUD:92162755; PMID:1536887
A;Accession: S20597
A;Accession: S20597
A;Accession: S20597
A;Accession: S20597
A;Reference number: S2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LOANHNIRELDISFNDLGDWGLWLLAEGLQHPACRLQKLWLDSCGLTAKACENLYFTLGI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    791 QEMASVLGTNPHLVELDLTGNALEDLGLRLLCQGLRHPVCRLRTLWLKICRLTAAACDEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NQTLTDLYLTNNALGDTGVRLLCKRLSHPGCKLRVLWLFGMDLNKMTHSRLAA 1023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                              Ś
                                                                                                               A;Status: preliminary
A;Molecule type: protein
A;Residues: 2-14 <NAD>
R;Poustka, A.; Wellenreuther, R.; Mewes, H.W.; Weil, B.; Wiemann,
Bubmitted to the Protein Sequence Database, March 2000
A;Reference number: Z24374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; Score 724; DB 2; Length 461;
; Pred. No. 4.1e-48;
64; Mismatches 139; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Cross-references: EMBL:AL161967
A;Experimental source: adult testis; clone DKFZp434K249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A,Cross references: GDB:125274; OMIM:173320
A,Map position: 11p15.5-11p15.5
A,Note: DKE2P44K249.1.
C,Superfamily: ribonuclease inhibitor; leuci
C,Keywords: blocked amino end; duplication
F;34-433/Region: leucine-rich 57-residue rep
F;77-81/Domain: leucine-rich alpha-2-glycopr
F;114-138/Domain: leucine-rich alpha-2-dlycop
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            13.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches 150; Conservative
                                                                                                                                                                                                                                                                                                                                                       A,Status: preliminary
A,Molecule type: mRNA
A,Residues: 1-461 <AAA>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Gene: GDB: RNH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            731
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
```

```
A,Cross-references: UNIPROT:P29315; EMBL:X62528; NID:957670; PIDN:CAA44388.1; PID:95767 C;Superfamily: ribonuclease inhibitor; leucine-rich alpha-2-glycoprotein repeat homolog F;280-304/Domain: leucine-rich alpha-2-glycoprotein repeat homology <LRR>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ribonuclease inhibitor, hepatic - pig
CiSpecies: Sus scrofa domestica (domestic pig)
CiSpecies: Or-Jun-1990 #sequence_revision 07-Jun-1990 #text_change 09-Jul-2004
CiAccession: Ala857, Al5830
Biochemistry 27, 8537-8544, 1988
A;Title: Amino acid sequence of the ribonuclease inhibitor from porcine liver reveals the A;Reference number: Al857; MUD:89118268; PMID:3219361
A;Roccession: Al857
A;Roccession: Al857
A;Residues: 1-456 cHOF
A;Roccession: Al857
A;Residues: 1-456 cHOF
A;Cross-references: UNIPROT:P10775
B;Vicentini, A.M.; Kieffer, B.; Matthies, R.; Meyhack, B.; Hemmings, B.A.; Stone, S.R., Biochemistry 29, 8827-8834, 1990
A;Title: Protein chemical and kinetic characterization of recombinant porcine ribonucle A;Reference number: A35830; MUD:91104783; PMID:2271559
A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Molecule type: mRNA
A;Residues: 82-456 <VIC>
A;Cross-references: GB:M58700; NID:g164638; PIDN:AAA63448.1; PID:g164639; GB:J02925
C;Superfamily: ribonuclease inhibitor; leucine-rich alpha-2-glycoprotein repeat homolog
C;Keywords: liver
F;280-304/Pomain: leucine-rich alpha-2-qlycoprotein repeat homology <LRR>
                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          910
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              970
                                                                                                                                                                                                                                                                           730
                                                                                                                                                                                                                                                                                                                                                                                                               790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    730
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               791 QEMASVLGTNPHLVELDLTGNALEDLGLRLLCQGLRHPVCRLRTLWLKICRLTAAACDEL 850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    94
                                                                                                                                                                                                                                                                                                                                           94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 215 CDVVASKASLQELDLGSNKLGNTGIAALCSGLLLPSCRLRTLWLWDCDVTAEGCKDLCRV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LOANHNLRELDLSFNDLGDWGLWLLAEGLQHPACRLQKLWLDSCGLTAKACENLYFTLGI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     35 LTEEHCKDIGSALRANPSLTELCLRTNELGDAGVHLVLQGLQSPTCKIQKLSLQNCSLTE
                                                                                                                                                                                                                                                                           671 LLDAYSEHLAAALCTNPNLIELSLYRNALGSRGVKLLCQGLRHPNCKLQNLRLKRCRISS
                                                                                                                                                                                                                                                                                                                                           35 LTEVRCKDIRSAIQANPALTELSLRTNELGDAGVGLVLQGLQNPTCKIQKLSLQNCSLTE
                                                                                                                                                                                                                                                                                                                                                                                                               SACEDLSAALIANKNITRMDLSGNGVGFPGMMLLCEGLRHPQCRLQMIQLRKCQLESGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGCGVLPDVLRSLSTLREIHLNDNPLGDEGLKLLCEGLRDPQCRLEKLQLEYCNLTATSC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      QEMASVLGTNPHLVELDLTGNALEDLGLERLLCQGLRHPVCRLRTLWLKICRLTAAACDEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ASTLSVNQSLRELDLSLNELGDLGVLLLCEGLRHPTCKLQTLRLG1CRLGSAACEGLSVV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                671 LLDAYSEHLAAALCTNPNLIELSLYRNALGSRGVKLLCOGLRHPNCKLQNLRLKRCRISS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           731 SACEDLSAALIANKNLTRMDLSGNGVGFPGMMLLCEGLRHPQCRLQMIQLRKCQLESGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NOTLTDLYLTNNALGDTGVRLLCKRLSHPGCKLRVLWLFGMDLNKMTHSRLAAL 1024
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ;280-304/Domain: leucine-rich alpha-2-glycoprotein repeat homology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 456;
                                                                                                                                       Length 456;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            13.0%; Score 709; DB 2; Length 45
42.7%; Pred. No. 5.8e-47;
tive 60; Mismatches 143; Indels
                                                                                                                                Query Match 13.1%; Score 717; DB 2; Length 45
Best Local Similarity 41.5%; Pred. No. 1.4e-47;
Matches 147; Conservative 66; Mismatches 141; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
```

```
AII and AVP receptor isoform.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GLRHPNCKLONLRLKRCRISSSACEDLSAALIANKNLTRMDLSGNGVGFPGMMLLCEGLR 769
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SMITQQCGLSILTLSHCKLPDAVCRDLSEALKVAFSLRELGLLQNRLTEAGLRLLSQGLA 377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HPQCRLQMIQLRKCQLESGACQEMASVLGTNPHLVELDLTGNALEDLGLRLLCQGLRHPV 829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ---CSAGAHTLLVQLRPERTVLLDAYSEHLAAALCTNPNLIELSLYRNALGSRGVKLLCQ 709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   601
                                                                   970
                                                                                                                             214
                                                                                                                                                                                                                                                    RESULT 6
827880
Nasopressin receptor - rat
C.Species: Rattus norvegicus (Norway rat)
C.Species: 17-Apr-1993 #sequence_revision 17-Apr-1993 #text_change 05-Nov-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           507 GAGPDQDVTRLLTEYAFSERSFLALTSRFLFGLLNEETRSHLEKSLCWKVSPHIKMDLLQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WIQSKAQSDGSTL--------QQGSLEFFSCLYBIQBEBFIQQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ALSSLPEMVLERVELTRMDLEVLSYCVQCCPDGQALRLVSCGLVAAKEKKKKKKSFMNRL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                450 EEQDLR--KHGLDGEDV-SAFLNMNIFQKDINCERYYSFIHLSFQEFFAAMYYILDEGEG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ALSHFQVIVVSNI-ASKMEHMVSSFCLKRCRSAQVLHLYGATYSADGEDRAR-----
                                                                                                                                                                                                                                                                                               C;Species: Rattus norvegicus (Norway rat)
C;Date: 17-Apr-1993 #sequence_revision 17-Apr-1993 #text_change 05-Nov-1999
C;Date: 17-Apr-1993 #sequence_revision 17-Apr-1993 #text_change 05-Nov-1999
C;Date: 17-Apr-1993 #sequence_revision 17-Apr-1993 #text_change 05-Nov-1999
C;Date: 17-Apr-1993 #sequence_revision 17-Apr-1993
A;Herrera, V.L.; Ruiz-Opazo, N.
Bubmitted to the EMBL Data Library, February 1992
A;Reference number: $27880
A;Reference number: $27880
A;Accession: $27880
A;Accession: $27880
A;Accession: $27880
A;Accession: $27880
A;Accession: $27880
A;Accession: $27880
A;Cosse-references: EMBL:M85183; NID:g202805; PIDN:AAA03623.1; PID:g202806
C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LEGGGLLRQTSRTTTAVYMLYLLSLMQPK-PGAPRLQPPPNQRGLCSLAADGLWNQKILF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LOANHNLRELDLSFNDLGDWGLWLLAEGLQHPACRLQKLWLDSCGLTAKACENLYFTLGI
                                              ASTLSVNQSLRELDLSLNELGDLGVLLLCEGLRHPTCKLQTLRLGICRLGSAACEGLSVV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                      971 NOTLIDLYLINNALGDIGVRLLCKRLSHPGCKLRVLWLFGMDLNKWIHSRLAAL 1024
                                                                                                                                                                                          85;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9.0%; Score 494.5; DB 2;
28.8%; Pred. No. 2.9e-30;
Live 74; Mismatches 205;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CRLRILWLKICRLTAAACDELASTLSVNQSL 860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               298 KGSQSTGKQPPASLLRP-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity 28.88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               710
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                          유
                                                                                                                ò
                                                                                                                                                                              ò
                         용
                                                      ò
                                                                                   셤
```

```
A48843
MHC class II transactivator - human
MHC class II transactivator - human
N;Alternate names: CIITA
C;Species: Homo sapiens (man)
C;Species: Homo sapiens (man)
C;Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 09-Jul-2004
C;Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 09-Jul-2004
C;Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 09-Jul-2004
R;Steimie, V; Otten,
Cell 75, 135-146, 1993
A;Title: Complementation cloning of an MHC class II transactivator mutated in hereditar
A;Reference number: A48843; MUID:94006536; PMID:8402893
A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                    A;Molecule type: mRNA
A;Residues: 1-1130 <STE>
A;Cross-references: UNIPROT:P33076; GB:X74301; NID:G414112; PIDN:CAA52354.1; PID:g41411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABEAGIWQH------VVQELPGRL-----SFLGTRLTPPDA-HVLGKALBAAGQD--- 858
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                708 COGLR-HPNCKL------ANDERCRISSSACEDLSAALIANK 744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      593 IQEEEFIQQALSHFQVIVVSNIASKMEHMVSSFCLKRCRSAQVLHLYGATYSADGEDRAR 652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CSAGAHTLLVQLRPERTVLLDAYSEHLAAALCTN--PNLIELSL---YRNALGSRGVKLL 707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -----FSLDLR------STGICPSGLGSLVGLSCVTRFRAALSD--TVAL 895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NLTRMDLSGNGVGFFGMMLLCEGLRHPQCRLQMIQLRKCQLESGACQEMASVLGTNPHLV 804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ---- PKLV 977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PNQRG-LCSLAAD-GLWNQKILFEEQ----DLR----KHGLDGEDVSAFLNMNIFQKDIN 478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     757
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            896 WESLRQHGETKLLQAABEKFTIEPFKAKSLKDVEDLGKLVQTQRTRSSSEDTAGELPAVR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CERYYSFIHLSFQEFFAAMYYILDBGGGGGGGGDDDVTRLLTEYAFSER----SFLALTSRF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LFGLINEETRSHLEKSLCWKVSPHIKMDLLQWIQS----KAQSDGSTLQQGSLEFFSCLYE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | | | : : | | : | | : | | : | | : | | : | | : | | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | : | | : | : | | : | : | | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  QQQLLDTGRGHARTVGHQASPIKIETLFEPDEERPEPPRTVVMQGAAGIGKSMLAHKVML
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LLFIIDGFDELKPS---FHDPQGPWCLCWEEKRPTEL--LLNSLIRKKLLPELSLLITTR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               P-----TALEKLHRLLEHPRHVEILGFSEAERKEYFYKYFHNA---EQAGOVFNYVRDNE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            369 PLFTMCFVPLVCWVVCTCLQQQLEGGGLLRQTSRTTTAVYMLYLLSLMQPKPGAPRLQPP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EDLVRDPQETY -----RDYVRRKFRLMEDRNARLGECVNLSHRYTRLLLVKEHSNPMQV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       206 DWADGKIFQGRFDYLFYINCREMNQSATECSMQDLIFSCWPEPSAPLQE----LIRVPER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels 235;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 1130;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               6.9%; Score 377.5; DB 2;
Local Similarity 23.6%; Pred. No. 1.2e-20;
Les 220; Conservative 122; Mismatches 355;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     :| ::: : | | |
956 DLKKLEFALGPVSGPQAF-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                쉽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
```

Qy 805 ELDLTGNALEDLGLRLLCQGLRHPVCRLRTLWLKICRLTAAACDELASTLSVNQSLRELD 864 Db 978 RILTAFSSLQHLDLDALSENKIGDEGVSQLSATFPQLKSLETLN 1021 Qy 865 LSLNELGDLGVLLCEGLRHPTCKLQTLRLGICRLGSAACEGLSVVLQANHNLRE 919 I	Db 491 PKHLPEVKDLVYALKSFTKPHKLRLRSNWTTTTEVLETLLRGIHGTTTTTTRFVINNIEM 550 Qy 617 KMEHMVSSFCLKRCRSAQVLHLYGATYSADGEDRARCSAGAHTLIVQLRPERTVLLDAYS 676
RESULT 8 T31665 Hypothetical protein COS1.4 - sea squirt (Ciona intestinalis) C;Species: Ciona intestinalis C;Bate: 29-Oct-1999 #sequence_revision 29-Oct-1999 #text_change 09-Jul-2004 C;Accession: T31665 R;Bird, A.P.; Clark, V.; Jones, S.J.; Leitgeb, S.; Lennard, N.; Tweedie, S. submitted to the EMBL Data Library, October 1996 A;Reference number: Z21050 A;Reference number: Z21050 A;Reference number: Z21056 A;Reference number: Z21056 A;Reference number: Z21056 A;Reference number: J1064 A;Residues: 1-1004 <bir> A;Residues: 1-1004 <bir> A;Residues: 1-1004 <bir> A;Residues: 30/1; 539/3; 662/3; 789/3; 769/3; 817/2; 881/2; 960/1 C;Genetics: A;Introns: 30/1; 539/3; 662/3; 728/3; 769/3; BB 2; Length 1004; Best Local Similarity 20.3%; Pred. No. 1.9e-11; Matches 218; Conservative 157; Mismatches 361; Indels 340; Gaps 52;</bir></bir></bir>	OY 782 KCQLESGACQEMASVLGTNPHLVELDLTGNALEDLGGLRHPVCRL 932
09 150 LDTGRGHARTVGHQASPIKIETLFEPDE	RESULT 9 Til68 hypothetical protein COS1.5 - sea squirt (Ciona intestinalis) C;Species: Ciona intestinalis C;Species: Ciona intestinalis C;Date: 29-Oct-1999 #sequence_revision 29-Oct-1999 #text_change 09-Jul-2004 C;Accession: Til66 R;Bird, A.P.; Clark, V.; Jones, S.J.; Leitgeb, S.; Lennard, N.; Tweedie, S. submitted to the EWEL Data Library, October 1996 A;Reference number: Z21050 A;Accession: Til668 A;Accession: Til668 A;Accession: Preliminary; translated from GB/EMBL/DDBJ
QY 287 WEEKRPTELLLASLIRKKILPELSILITTRPTALEKLHRILEHPRHVEILGFSEAERK 344 Db :	80904; PIDN:CAB02589. 2; 739/1; 779/3; 820/ 6.5; DB 2; Length 1
Qy 401 SRTTTAVYMLYLLSLMQPKPGAPRLQPPNQRGLCSLAADGLWNQKILFE 450 : : : : : : : :	Matches 153; Conservative 112; Mismatches 295; Indels 177; Gaps 102 YRDYVRRKFRLMEDRNARLGECVALSHRYTRLLLLVKEHSNPMOVQQQLLDTGRGHARTVG
Qy 501 LDEGEGGAGPDQDVTRLLTEYAFSERSFLALTSRFLFGLLN	Db 48VTIDQLFDKALENAQRYTEDESABYAKWYIERHANTVWVVGPPGVGKTTLL-KMM 101 QY 205 LDWADGKLFQGRPDYLFYINCREMNQSATECSWQDLIFSCWPEPSAPLQELIRV 258 :

Db 528 GSVTEMCMRNII	401 660 460 718		DD 890GRTLTLGALNLOYFFDHPESLSLIRSIHFSIRGNKISPKAHFSVLEICENSO 3*2 QY 632 SAQVLHLYGATYSADGEDRARCSAGAHTLLVQLRPERTVL 671 DD 943 VPTIDQDYASAFEPWNEWERNLAEKEDNVKSYMDWQRRASPDLSTGYKLEFQYKIPCL 1002 QY 672LDAYSEHLAAALCTNPMLIELSLYRNALGSRGVKLLCQGLRHPNCKLQNLR 722 DD 1003 EVDVNDIDVVGODMLSILAMYFSASQRIELHANHSRGFIESIR-PALELSKAS 1054	723	RESULT 11 B97746 hypothetical protein RC0370 [imported] - Rickettsia conorii (strain Malish 7) C;Species: Rickettsia conorii C;Species: Rickettsia conorii C;Date: 30-Sep-2001 #sequence_revision 30-Sep-2001 #text_change 09-Jul-2004 C;Accession: B97746 R;Ogata, H.; Audic, S.; Renesto-Audiffren, P.; Fournier, P.E.; Barbe, V.; Samson, D.; R; Science 293, 2093-2008 2001 A;Tttle: Mechanisms of Evolution in Rickettsia conorii and Rickettsia prowazekii. A;Reference number: A97700; MUID:21442074; PMID:11557893 A;Accession: B97746 A;Creatus: pre-liminary		CORRETVATIVE 74; MISMACCHES 11/; INCRES 02; ORDS DPORTYRDYVRRKFRLMEDRNARLGECVNLSHRYTRLLLVKEHSNPMQ 1 :
DD 221 QMYKLHPDYRPTSIFEVIGLLEBAKNNLGTQLCGEKYPAIKKILDQQPNLAHLC 274 QY 375 FVPLVCWVCTCLQQQLEGGGLLRQTSRTTTAVYMLYLLSLMQPKPGAPR 424 DD 275 YLPINFILIVFCLLSN-EGSDIKTMTQVLIFSMTRFVELSHLKGEVPLDKVGAEM 328 QY 425 LQPPPNQRGLCSLAADGLWNOKILFEGQDLRKHGLDGB	Db 329 VKLARLAYGLQQRKLVFHIT	577 471 634 529	68) ERIVULAS SERINALINGEN I	RESULT 10 A55510T neuronal apoptosis inhibitory protein - human N'Alternate names: NATP C'Species: Homo sapiens (man) C'Date: 05-Jan-1996 #sequence_revision 05-Jan-1996 #text_change 02-Feb-2001	C.Accession: A55478 R;Roy, N.; Mahadevan, M.S.; McLean, M.; Shutler, G.; Yaraghi, Z.; Farahani, R.; Baird, S. d, T.O.; de Jong, P.J.; Surh, L.; Ikeda, J.E.; Korneluk, R.G.; MacKenzie, A. Cell 80, 167-178, 1995 Cell 80, 167-178, 1995 A;Title: The gene for neuronal apoptosis inhibitory protein is partially deleted in indi A;Reference number: A55478; MUID:95112344; PMID:7813013 A;Molecule type: mRNA A;Residues: 1-1232 CROy> A;Cross-references: GB:U19251 C;Genetics: C;Genetics: A;Gene: GDB:SNAA); SWA	A;cross-references: GPB-120378; OMIM:600354; OMIM:253300 A;Map position: 5q12.2-5q13 glycoprotein; nucleotide binding; P-loop; transmembrane prot C;Keywords: apoptosis; ATP; glycoprotein; nucleotide binding produced: apoptosis; ATP; encountering predicted <twm1> F;94-110/Domain: transmembrane #status predicted <twm1> F;470-477/Region: nucleotide-binding motif A (P-loop) F;479-496/Domain: transmembrane #status predicted <twm2> F;476/Binding site: ATP (Lys) #status predicted F;618,632,823,923,1035/Binding site: carbohydrate (Asn) (covalent) #status predicted</twm2></twm1></twm1>	Query Match 3.4%; Score 183.5; DB 2; Length 1232; Best Local Similarity 21.3%; Pred. No. 1.6e-05; Matches 148; Conservative 94; Mismatches 248; Indels 205; Gaps 35; Qy 188 MQGAAGIGKSMLAHKVMLDWADGKL-FQGRFDYLFYINCR

```
205 GEEÓŚĎSGSEGEĠŚ---
                                                                                                                                                                                                                                                      598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 14
                                                                                                                            ઠે
                                                                                                                                                          셤
                                                                                                                                                                                       ò
                                                                                                                                                                                                                 qq
                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                              315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        722
   255
                               177
                                                                                             221
                                                                                                                                             754
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  366
                                                                                                                           RPTA-LEKLHRLLEHPRHVEILGFSEAERKEYFYKYFHNAEQAGQVFNYVRDNE-PLFTM 373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  873
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                933
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C;Species: Medicago sativa (alfalfa) - alfalfa
C;Species: Medicago sativa (alfalfa)
C;Species: Medicago sativa (alfalfa)
C;Date: 20-Oct-2000 #sequence_revision 20-Oct-2000 #text_change 09-Jul-2004
C;Accession: T52063
R;Pay, A.; Nick, P.; Nagy, F.
submitted to the EMBL Data Library, December 1999
A;Reference number: 225929
A;Accession: T52063
A;Accession: T52063
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
                                                                                                                                                                                                                                                                                             RAN Grpase-activating protein 2 [imported] - Arabidopsis thaliana C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Date: 20-oct-2000 #sequence_revision 20-oct-2000 #text_change 09-Jul-2004 C;Accession: 175068
R;Pay, A.; Nick, P.; Nagy, F. submitted to the EMBL Data Library, December 1999
                  YKWGKEKLMNNKFDYVFRIRLKELLSWTVRYGTNIDDEILSCFVHYCLDSNDIKLEDIKS
                                                                              249 LMNDGISKEAAQAVSELIPSTENIRVLHFHNNMTGDEGALAIAEVVKRSPLLENFRCSST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    309 RVGSKGGIALSEALEH--CTHMEKLDLRDNMFGTEAGVSLSKTLSSFKHMTELYLSYLNL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LDWADGKLFQGRFDYLFYINCREMNQSATE--CSMQDLIFSCW-----PEPSAPLQEL--
                                                              IRVPERLLFIIDGFDELKPSFHDPQGPWCLCWEEKRPTELLLNSLIRKKLLPELSLLITT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RPERTVL--LDAYSEHLAAALCTNPNLIELSLYRNALGSRGVKLLCQGLRHPNCKLQNLR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EDLGLRLLCQGLRHPVCRLRTLWLKICRLTAAACDELASTLSVNQSLRELDLSLNELGDL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GVLLLCEGLRHPTCKLQTLRLGICRLGSAACEGLSVVLQANHNLRELDLSFNDLGDWGLW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GVGFPGMMLLCEGLRHPQC-RLQMIQLRKCQLESGACQEMASVLGTNPHLVELDLTGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           39;
                                                                                                                                                                                                                                                                                                                                                                                                                                            A;MOlecule type: mRNA
A;Residues: 1-545 <PAY>
A;Cross-references: UNIPROT:Q9M651; EMBL:AF214560; PIDN:AAF25948.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 2; Length 545;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
3.3%; Score 179.5; DB 2; Length 54
Best Local Similarity 23.4%; Pred. No. 9.8e-06;
Matches 71; Conservative 55; Mismatches 139; Indels
                                                                                                                                                                                       CFVPLVCWVVCTCLQQQLEGGGLLRQTSRTTTAVYML 410
                                                                                                                                                                                                           280 CAVPINTALICLVWSDQ----AIRDKFQKKTVIKIL 311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       723 LKRCRISSSACEDLSAALIANKNLTRMDLSGN-----
                                                                                                                                                                                                                                                                                                                                                                                            A;Reference number: 225929
A;Accession: T52068
A;Status: preliminary; translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           934 LLAE 937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ELKE 490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          487
                                                                                                                                                                                       374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       195
                                                                                                                           316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 13
T52063
                             g
                                                                                      g
                                                                                                                                                      요
                                                                                                                                                                                                                   셤
8
                                                                                                                         ò
                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
```

```
T-complex-associated-testes-expressed-1 protein - mouse
T-complex-associated-testes-expressed-1 protein - mouse
T-complex-associated-testes-expressed-1 protein - mouse
T-complex-associated-testes-expressed-1 protein - mouse
C;Species: Musculus (house mouse)
C;Date: 03-Mar-1994 #sequence_revision 03-Mar-1994 #text_change 09-Jul-2004
C;Accession: A45841
A;Reference number: A45841
A;Reference number: A45841
A;Reterence number: A45841
A;Catus: preliminary
A;Molecule type: mRNA
A;Residues: 1-506 <SAR>
A;Residues: 1-506 <SAR>
A;Cross-references: UNIPROT:Q62294; GB:M28821; NID:g201909; PIDN:AAA4066.1; PID:g20191
                                                                                                                                                                                                                                                                                                                                                         16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          923
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         812
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          863
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   : : | : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : : | : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : | : : : : | : : : : | : : : : | : : : : | : : : : | : : : : | : : : : : | : : : : : | : : : : : | : : : : | : : : : : | : : : : : | : : : : : | : : : : : | : : : : : | : : : : : | : : : : : 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             75 KEPDGDGSSAVQIYAKESSKLMLEVLKRGPRGKEENGELISEKGDAAVETVFDISGGRRA 134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     523 FSERSFLALTSRFLFG-----LL----NEETRSHLEKSLCWKVSPHIKMDLLQWIQ 569
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       19 PPSQSTRLM----LVERMVRNLTTPSIFSRKYGLLNKDEAEKDAKEIEDAAFVTASQHFE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | |-----FIAGRPEAEAIEVMNIFSSALERAV-----LRYLNLSNNAMGEKGVRAFRALL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   712 RHPNCKLQNLRLKRCRISSSACEDLSAALIANKNLTRMDLSGNGVGFPGMMLLCEGLRHP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  357 TEIYLSYLNİEDDGAEALANALKESAPSLETLDMAGNDITAKATVSVAECISSKQFLTKL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             550 K-----SLCWKVSPHIKMDLLQWIQSKAQSDGSTLQQGSLEFFSCLYEIQ--EEE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FI -- OQALSHFQVIVVSNIASKMEHMVSSFCLKRCRSAQ--VLHLYGATYSADGEDRARC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   654 SAGAHTLLVQLRPERTVL--LDAYSEHLAAALCTNPNLIELSLYRNALGSRGVKLLCQGL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         772 QCRLQMIQLRKCQLESGACQEMASVLGTNPHLVELDLTGNA--------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          813 ------LEDLGLRLLCQGLRHPVCRLRTLWLKICRLTAAACDELASTLSVNQSLREL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DISLNELGDIGVLLLCEGLRHPTCKLQTLRLGICRLGSAACEGLSVVLQANHNLRELDLS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ----ISKALEGRGQLSEVDLS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 570 SKAQSDGSTLQQGSLEFFSCLYEIQEEEFIQQALSHFQVIVVSNIASKMEHMVSSFCLKR
                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 3.2%; Score 177.5; DB 2; Length 506; Best Local Similarity 21.6%; Pred. No. 1.3e-05; Matches 93; Conservative 55; Mismatches 155; Indels 127;
                                                                                                                                                                                                                                Query Match 3.3%; Score 178; DB 2; Length 533; Best Local Similarity 22.2%; Pred. No. 1.2e-05; Matches 112; Conservative 69; Mismatches 205; Indels 118;
A;Residues: 1-533 <PAY>
A;Cross-references: UNIPROT:Q9SBS1; EMBL:AF215731; PIDN:AAF19528.
A;Experimental source: subspecies x varia; cultivar A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            510 PDQDVTRLLTEYAFSERSFLALTSRFLF----GLLNEE--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                924 FNDLGDWGLWLLAEG-LQHPACRL 946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       448 TNLITWSGAKLLAEAVVOKPGFKL 471
```

```
986
                                                                 g
                                                                                                                               ઠે
                                                                                                                                                                                     엄
                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               De
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     hypothetical protein F7A7.240 - Arabidopsis thaliana (Species: Arabidopsis thaliana (mouse-ear cress) (Species: Arabidopsis thaliana (mouse-ear cress) (Species: 20-Apr-2000 #sequence_revision 20-Apr-2000 #text_change 09-Jul-2004 (Species) (Specie
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      765
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       823 QGLRH------PVCRLRTLWL--KICRLTAAACDELASTLSVNQSLRELDLSLNELGDL 873
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       874 GVLLLCEGLRH-PTC-KLQTLRLGICRLGSAACEGLSVVLQANHNLRELDLSFNDLG--D 929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     690 IELSLYTRNALGSRGVKLLCQGLRHPNCKLQNLRLKRCRISSSACEDLSAALIANKNLTRM 749
                                                                                                                                                                                                                         DLSGNGVGFPGMMLLCEGLRHPQCRLQMIQLRKCQLESGACQEMASVLGTNPHLVELDLT 809
                                                                                                                                                                                                                                                            GNALEDLGLRLLCQGLRHPVCRLRTLWLKICRLTAAACDELASTLSVNQSLRELDLSLNE 869
                                                                                                                                                                                                                                                                                                                                                                          870 IGDLGVILLCEGLRHPTCKLQTLRLGICRLGSAACEGLSVVLQANHNLRELDLSFNDLGD 929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -----GKQLLEGIS----DNKTILEFDLRLSDVSQ 457
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         766 EGLRHPQCRLOMIQLRKCOLESGACQEMASVLGTNPHLVELDLTGNALEDLGLR---LLC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        689 LIELSLYRNALGSRGVKLL---CQGLR--------HPNCKLQNLR---LKRC--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -----RISSSACEDLSAALIANKNLTRMDLSGNGVGFPGMMLLC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              239 VDDDSLKSLRHDCKSLKMYKQKLDASSCQNLT-----HRGLTSL-LSGAGY-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            629 RCRSAQVLHLYGATYSADGEDRARCSAGAHTLLVQLRPERTVLLDAYSEHLAAALCTNPN
CRSAQVLHLYGATYSADGEDRARCSAGAHTLLVQLRPERTVLLDAYSEHLAAALCTNPNL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Map position: 5
A;Introns: 213/3; 255/3; 259/3; 294/3; 350/1; 376/1; 419/2; 517/3; 601/3
A;Note: F7A7.240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels 137;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3.2%; Score 172.5; DB 2; Length 618;
Similarity 25.4%; Pred. No. 4.1e-05;
22; Conservative 61; Mismatches 160; Indels 137;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;MOJecule fype: DNA
A;Residues: 1-618 <BEV>
A;Crossreferences: UNIPROT:Q9M004; EMBL:AL161946
A;Experimental source: cultivar Columbia; BAC clone F7A7
C;Genetics:
                                                                                                                                                                      EELDLSHNLIGDRGARAAAKLLSH----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      427 IĠQDĠ-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  :|: : |
ESEYLIGQVL 467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            930 WGLWLLAEGL 939
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        122;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local S:
Matches 122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            727
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    458
                                                                                                                                                                               307
                                                                                                                                                                                                                                       750
              630
                                                                                                                                                                                                                                                                                                331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                     엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                          ద
                                                                                                                                                                                                                                                                                                                                                        8
                                                                    셤
                                                                                                                            ò
                                                                                                                                                                            g
                                                                                                                                                                                                                                       ò
```

Search completed: February 8, 2005, 14:59:56 Job time : 57 secs

3

```
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
```

		18
		time
		Search time 18
		•-
sw model		:29:33
3		14
using		2005, 14:29:33
ď,		8
search		lary
protein	-	February
ı		
OM protein		:uo u
ŏ		Run

February 8, 2005, 14:29:33 ; Search time 185 Seconds (without alignments) 2864.875 Million cell updates/sec

US-10-781-294-24 5472 1 MLRTAGRDGLCRLSTYLEEL......MTHSRLAALRVTKPYLDIGC 1035 Title: Perfect score: Sequence:

BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table:

1612378 seqs, 512079187 residues Searched:

1612378 Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

UniProt_03:*
1: uniprot_sprot:*
2: uniprot_trembl:* Database :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

	ų,	homo sapien	mus musculu	homo sapien	mus musculu				homo sapien	gorilla gor	macaca sylv	theropithec	alouatta be	cebus apell	colobus gue	cercopithec	callithrix	cebuella py	homo sapien	homo sapien	aotus azara	saimiri sci	Baguinus mi	cheirogaleu	homo sapien	musculů	musculu	taurus		o sapien		
	Description	P59046 hom			_	Q6tg35 homo	Q86w24 homo	Q7rtr0 homo		_	_			~		Q68u58 cer		_	Q96mn2 hom	_				_	_	Sch966 mus	Q66x14 mus	Q647i9 bos	Q86ub5 homo	Q9c000 homo	P59047 homo	Q9by26 hото
SUMMARIES	QI.	NA12 HUMAN	Q6UQE6	CIS1 HUMAN	CIS1_MOUSE	Q6TG35	NA14_HUMAN	Q7RTR0	Q86W27	Q68U61	Q68U59	Q68U60	Q68U56	Q68U53	Q68U57	Q68U58	Q68U51	Q68U50 ·	NAL4 HUMAN	Q86W87	Q68U55	Q68U54	Q68U52	Q68U48	NA13 HUMAN	Q6B9 <u>6</u> 6	Q66X14	Q647I9	Q86UBS	NAL1 HUMAN	NALS HUMAN	Q9BYZ6
	DB	П	~	ч	П	N	7	~	~	N	N	~	~	~	0	7	~	~	-	7	~	7	N	7	Н	~	~	~	~	-	Н	7
	Query Match Length DB	1061	719	1034	1033	977	1093	991	986	206	206	206	200	200	909	206	200	200	994	994	499	200	200	475	1043	993	986	1098	1375	1473	1200	287
d P	Query Match	99.3	49.7	43.8	43.1	41.2	32.9	27.8	27.5	27.3	27.0	27.0	26.9	26.9	26.9	26.8	26.7	26.6	26.6	26.5	26.5	26.4	26.3	25.6	25.6	25.5	25.4	25.3	25.2	25.1	24.1	24.0
	Score	5433	2722	2396	2359.5	2253.5	1799	1519.5	1505.5	1493.5	1475.5	1475.5	1474	1471	1470.5	1468.5	1461	1458	1457.5	1450.5	1449.5	1442	1438	1402	1401	1396.5	1390.5	1387	1377	1375	1320	1314.5
	Result No.	-	8	m	4	S	9	7	89	0	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	56	27	28	29	30	31

Q9nx02 homo sapien O66x27 mus musculu		Objek/ dasypus nov Objek/ dasypus nov	Q8bu40 mus musculu		Q7rtr1 homo sapien		шпв	Q7tpu9 mus musculu	mus	Q6xzf2 mus musculu
NAL2 HUMAN 066X27	068049	Q66X19	Q8BU40	Q5UERS Q7RTR4	Q7RTR1	Q86W28	Q66X03	Q7TPU9	Q6VSG3	Q6XZF2
7	0	7 (7	~ ~	v 0	~	N	N	~	~	7
1062	437	978	985	1048	1009	1029	949	1111	1095	1111
23.9	23.7	23.5	23.0	22.9	22.3	22.2	21.6	21.4	21.3	21.3
1309	1299.5	1268	1259	1249.5	1222	1216.5	1183	1168.5	1166.5	1165.5
32	34	36	37	3 6	40	41	42	43	44	45

ALIGNMENTS

```
754
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    814
                                                                                                                                                                                                                                                                                                                                                                214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  514
                                                                                                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   634
                                                                                                                                                                                                                                                                                                                                                                                                               274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 334
                                                                        CONFLICT
                                                                                                                                                                                                                                                               97
                                               VARSPLIC
 VARSPLIC
                       VARSPLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                       유
                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                     엄
                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                à
 STEPTE
                                                                                                                                                                                    g
                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                           This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             R GO; GO:000557; C:CYtoplasm; IDA.
R GO; GO:000556; F:Caspase activator activity; NAS.
R GO; GO:000556; F:Caspase activator activity; NAS.
R GO; GO:0005515; F:protein binding; IPI.
R GO; GO:0005515; F:protein binding; IPI.
R GO; GO:0005729; P:positive regulation of infalammatory response; NAS.
R GO; GO:005778; P:prositive regulation of interleukin-1-beta so. .; NAS.
R GO; GO:005778; P:release of cytoplasmic sequestered NF-kappaB; IDA.
R GO; GO:007165; P:signal transduction; NAS.
R GO; GO:007165; P:signal transduction; NAS.
R GO; GO:007161; LRR.
R INTERPO; IPRO07091; LRR. NAIM.
R INTERPO; IPRO07091; LRR. NAIM.
R INTERPO; PRO05060; LRR; 7.
R Pfam; PRO5729; NACHT; 1.
R Pfam; PRO5729; NACHT; 1.
R Pfam; PRO5739; DAPIN; 1.
R PROSITE; PS50824; DAPIN; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .; NAS.
Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
"Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences.";
Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903 (2002).
-!- FUNCTION: May mediate activation of CASP1 via ASC and promote activation of NF-kappa-B via IKK.
-!- SUBDINIT: Bluds to ASC with its DAPIN domain.
-!- ALTERNATIVE PRODUCTS:
EVENT.ALTERNATIVE PRODUCTS:
EVENT.ALTERNATIVE PRODUCTS:
                                                                                                                                                                                                        ATP-binding; Leucine-rich repeat; Repeat
                                                                                                                                                                                                                                                                 -!- SIMILARITY: Contains 1 DAPIN domain.
-!- SIMILARITY: Contains 8 leucine-rich (LRR) repeats.
-!- SIMILARITY: Contains 1 NACHT domain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (Potential).
                                                                                                                               Name=1; Synonyms=1;
IsoId=P59046-1; Sequence=Displayed;
Name=2; Synonyms=11;
IsoId=P59046-2; Sequence=VSP_005524;
Name=3; Synonyms=1II;
IsoId=P59046-3; Sequence=VSP_005523;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LERR 1.
LERR 3.
LERR 4.
LERR 5.
LERR 6.
LERR 7.
LERR 8.
                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL, AY095146; AAM18227.1; --
EMBL, AX154467; AAO18163.1; --
EMBL, AX116204; AAM7543.1; --
EMBL, AX116205; AAM7543.1; --
EMBL, AX116206; AAM75144.1; --
EMBL, AX116206; AAM75144.1; --
EMBL, EMBL, AX116207; AAM75145.1; --
EMBL, BC028069; AAM78069.1; --
HSSP, P13489; 1A4Y.
Genew; HGNC:22938; NALPI2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Alternative splicing;
DOMAIN 19528
DOMAIN 211 528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REPEAT
NP_BIND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REPEAT
                                                                                                                                                                                                                                    <u>:</u>
```

```
NGVGFPGMMILCEGLEHPQCRLQMIQLRKCQLESGACQEMASVLGTNPHLVELDLTGNAL 813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                633
                                                                                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                                                                 273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LRKHGLDGEDVSAFLANMIFQKDINCERYYSFIHLSFQEFFAAMYYILDEGEGGAGPDQD 513
                                                                                                                                                                                                                                                                                                                                                         213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PSFHDPQGPWCLCWEEKRPTELLLNSLIRKKLLPELSLLITTRPTALEKLHRLLEHPRHV 333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   153
                                                                                                                                                                                      9
                                                                                                                                                                                                                9
                                                                                                                                                                                                                                             96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LRKHGLDGEDVSAFLNMNIFQKDINCERYYSFIHLSFQEFFAAMYYILDEGEGGAGPDQD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VTRLLTEYAFSERSFLALTSRFLFGLINEETRSHLEKSLCWKVSPHIKMDLLQWIQSKAQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SDGSTLOQGSLEFFSCLYELQEEEFIQQALSHFQVIVVSNIASKMEHMVSSFCLKRCRSA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            694 LYRNALGSRGVKLLCQGLRHPNCKLQNLRLKRCRISSSACEDLSAALIANKNLTRMDLSG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EDLGLRLLCQGLRHPVCRLRTLWLKICRLTAAACDELASTLSVNQSLRELDLSLNELGDL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     QVLHLYGATYSADGEDRARCSAGAHTLLVQLRPERTVLLDAYSEHLAAALCTNPNLIELS
                                                                                                                                                                                                                                                                                                                     154 RGHARTVGHQASPIKIETLFEPDEERPEPPRIVVMQGAAGIGKSMLAHKVMLDWADGKLF
                                                                                                                                                                                                                                                                                                                                                                           QGRFDYLFYINCREMNOSATECSMODLIFSCWPEPSAPLOELIRVPERLLFIIDGFDELK
                                                                                                                                                                                                                                                                                                                                                                                                                                  241 QGRFDYLFYINCREMNQSATECSMQDLIFSCWPEPSAPLQELIRVPERLLFIIDGPDELK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BILGPSBABRKEYFYKYFHNAEQAGQVFNYVRDNBPLFTMCFVPLVCWVVCTCLQQQLEG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGLLRQTSRTTTAVYMLYLLSLMQPKPGAPRLQPPPNQRGLCSLAADGLWNQKILFBEQD
                                                                                                                                                                                                                                                                                                    ---DPQETYRDYVRRKFRLMEDRNARLGECVNLSHRYTRLLLVKEHSNPMQVQQQLLDTG
                                                                                                                                                                                                           1 MIRTAGROGICRISTYLEELEAVELKKFKLYLGTATELGEGKIPWGSMEKAGPLEMAQLL
                                                                                                                                                           Gaps
                                                                                                                                                           28;
                                                                                                                                DB 1; Length 1061;
                                                                                                                                                                                                                                              61 ITHEGPEEAWRLALSTFERINRKDLWERGQREDLVR-------
                                                                                                                                                             Indels
                                                                                   L -> LR (in Ref. 3).
MW; 8C10AFE4907C131B CRC64;
Missing (in isoform 3).
/FTId=VSP 005523.
Missing (in isoform 2).
/FTId=VSP_005524.
                                    MISBLIDS // PTId=VSP 005524.
Missing (in isoform 4).
                                                                                                                                Score 5433; DE Pred. No. 0; 0; Mismatches
                                                                                                                                   99.38;
                                                                                                        120172
                                                                                                                                                  97.48;
                                                                                                                                   Query Match
Best Local Similarity 97.4
Matches 1034; Conservative
                                                               1031
                                  1031
                                                                                            691
                                                                                                        1061 AA;
                                  916
                                                               862
```

7

유

셤

ò

ઠે 유

```
480
                                                                                              534
                                                                                                                                                                                                             593
                                                                                                                                                                                                                                                  654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A. (ISOFORMS 1 AND 2), VARIANTS FCAS MET-198; VAL-439 AND GLY-627, AND VARIANT WWS VAL-352.
MEDLINE=21547523; PubMed=11687797; DOI=10.1038/ng756;
Medlenan H.M., Mueller, J.L., Broide D.H., Wanderer A.A., Kolodner R.D.; "Mutation of a new gene encoding a putative pyrin-like protein causes familial cold autoinflammatory syndrome and Muckle-Wells syndrome.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "PYPAF1: a PYRIN-containing APAF1-like protein that assembles with ASC and activates NF-kB.";
                                                                                                                                                                                           SCVQTQSTYLQ-ERNMLPDVYSAYLSAAVCTNSNLIELALYRNALGSQCVRLLCQGLRHA
                     LMQPKPGAPRLQPPPNQRGLCSLAADGLWNQKILFEEQDLRKHGLDGEDVSAFLNMNIFQ
                                                         421 LMOPKPGTPTFKVPANORGLVSLAAEGLWNOKILFDEQDLGKHGLDGADVSTFLNVNIFO
                                                                                              KDINCERYYSFIHLSFQEFFAAMYYILDEGEGGAGPDQDVTRLLTEYAFSERSFLALTSR
                                                                                                                                  KGIKCEKFYSFIHLSFQEFFAAMYCALNGREA-----VRRALAEYGFSERNFLALTVH
                                                                                                                                                                       FLFGLLNEETRSHLEKSLCWKVSPHIKMDLLQWIQSKAQSDGSTLQQGSLEFFSCLYEIQ
                                                                                                                                                                                                                                                  EEEFIQQALSHFQVIVVSNIASKMEHMVSSFCLKRCRSAQVLHLYGATYSADGEDRARCS
                                                                                                                                                                                                                                                                      655 AGAHTLLVQLRPERTVLLDAYSEHLAAALCTNPNLIELSLYRNALGSRGVKLLCQGLRHP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A. (ISOFORM 2).
MEDLINE=21909508; PUBMed=1170556; DOI=10.1074/jbc.M112208200;
MADJI G.A. Wang L., Gedel B.S., Brown M., Merriam S., Al-Garawi A.,
MAN S., Lora J.M., Briskin M., Jurman M., Cao J., Distefano P.S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SECURNCE FROM N.A. (ISOFORMS 1; 2 AND 3), VARIANT WMS MET-198, AND VARIANTS FCAS/MWS TRP-260 AND PRO-305.
MEDLINE=22241234; PubMed=12355493; DOI=10.1002/art.10509;
Aganna E., Martinon F., Hawkins P.N., Ross J.B., Swan D.C.,
Booth D.R., Lachmann H.J., Gaudet R., Woo P., Feighery C.,
Cotter F.E., Thome M., Hitman G.A., Tschopp J., McDermott M.F.;
"Association of mutations in the NALD3/CIAS1/PYPAF1 gene with a broat phenotype including recurrent fever, cold sensitivity, sensorineural Activitis Rheum. 46:2445-2452(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   075434; ORTGON, QRIEUD; ORWKH9; 28-FBB-2003 (Rel. 41, Created)
28-FBB-2003 (Rel. 41, Last sequence update)
28-CFB-2004 (Rel. 45, Last annotation update)
Cold autoinflammatory syndrome 1 protein (Cryopyrin) (NACHT-, LRR-PYD-containing protein 3) (PYRIN-containing APAF1-like protein 1)
(Angiotensin/vasopressin receptor All/AVP-like).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TISSUE=Umbilical cord blood; MEDLINE=20499367; PubMed=11042152; DOI=10.1101/gr.140200;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1034 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE OF 391-1034 FROM N.A. (ISOFORM 1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Biol. Chem. 277:11570-11575(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Nat. Genet. 29:301-305(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                            SCKLONL 719
                                                                                                                                                                                                                                                                                                                                                                                                   715 NCKLONL 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Bertin J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CIS1 HUMAN
                                                                                                                                  481 1
                                                                                                                                                                                                                                                                                                                                                                 654
                                                                                                                                                                                                                                                                                                                                                                                                                                        713
                     415
                                                                                              475
                                                                                                                                                                       535
                                                                                                                                                                                                                                                  595
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 3
CIS1 HUMAN
                                                 셤
                                                                                                                        g
                                                                                                                                                                                                           윱
                                                                                                                                                                                                                                                                                유
                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                             유
                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                 ò
                                                                                            993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181 PDEERPEPPHTVVLQGAAGMGKSMLAHKVMLDWADGRLFQGRFDVVFYISCRELNRSHTQ 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361 GQASRVLSFLMDYEPLFTMCFVPMVSWVVCTCLKQQLESGELLRQTPRTTTAVYMFYLLS 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | PDEERPEPPRIVVMQGAAGIGKSMLAHKVMLDWADGKLFQCRFDYLFYINCREMNQSATE 234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LLINSLIRKKLLPELSLLITTRPTALEKLHRLLEHPRHVEILGFSEAERKEYFYKYFHNA 354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EQAGQVFNYVRDNEPLFTMCFVPLVCWVVCTCLQQQLEGGGLLRQTSRTTTAVYMLYLLS 414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 MLRTAGRDGLCRLSTYLEELEAVELKKFKLYLGTATELGEGKIPWGSMEKAGPLEMAQLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DRNARLGECVNLSHRYTRLLLVKEHSNPMQVQQQLLDTGRGHARTVGHQASPIKIETLFE
 GVLLLCEGLRHPTCKLQTLRLGICRLGSAACEGLSVVLQANHNLRELDLSFNDLGDWGLW
                                                                           LLAEGLOHPACRLOKLWIDSCGLTAKACENLYFTLGINQTLTDLYLTNNALGDTGVRLLC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ITHFGPEEAWRLALSTFERINRKDLWERGOREDLVR-----DPQETYRDYVRRKFRLME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CSMQDLIFSCWPEPSAPLQELIRVPERLLFIIDGFDELKPSFHDPQGPWCLCWESKRPTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                      Craniata; Vertebrata; Euteleostomi;
Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 719;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                     1020 KRLSHPGCKLRVLWLFGMDLNKWTHSRLAALRVTKPYLDIGC 1061
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRAIN-C57BL/6;
Martinon F., Hofmann K., Tschopp J.;
Submitted (AUG-2003) to the EMBL/GenBank/DDBJ databases.
EMBL; AY36410; AAG63460.1;
InterPro: IPR003590; LRR RNinh sub.
InterPro: IPR007111; NACHT NTPase.
InterPro: IPR004000; PAAD_DAPIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CA2E777CE7CC4A1F CRC64;
                                                                                                                                                  KRLSHPGCKLRVLWLFGMDLNKMTHSRLAALRVTKPYLDIGC
                                                                                                                                                                                                                                                                                                        05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
Mis minching (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      49.7%; Score 2722; DB 2; 71.1%; Pred. No. 3.8e-185; ive 81; Mismatches 115;
                                                                                                                                                                                                                                                                                        æ
                                                                                                                                                                                                                                                                                      719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pfam; PP05729; NACHT; 1.
Pfam; PP02758; PAAD_DAPIN; 1.
SMART; SM00368; LRR RI; 1.
PROSITE; PS50824; DAPIN; 1.
NON TER 719 A4; 82623 MW; (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    719 AA; 82623 MW;
                                                                                                                                                                                                                                                                                                                                                                                                 Mus musculus (Mouse).
Eukaryota, Metazoa, Chordata,
Mammalia, Eutheria, Rodentia,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ilarity 71.1%;
Conservative
                                                                                                                                                                                                                                                                                    PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity
Matches 517; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                          NCBI_TaxID=10090;
                                     900
874
                                                                         934
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                  994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                    Q6UQE6
                                                                                                                                                                                                                                                 RESULT 2
                                                                                                                                                                                                                                                                  QEUQES
```

셤

ò 셤 ò 요 ò

ઠ a 셤

8

요

ઠે

ð

is not removed,

modified and this statement

```
Fyndromes.";

Am. J. Hum. Genet. 70:1498-1506(2002).

I. Am. J. Hum. Genet. 70:1498-1506(2002).

I. Am. J. Hum. Genet. 70:1498-1506(2002).

PARIANTS CINCA ASN-303; SER-309; ARG-358; ASN-436; SER-573 AND VARIANTS CINCA ASN-303; SER-309; ARG-358; ASN-436; SER-573 AND TISSUE SPECIFICITY.

PERFORMED THE SERVER SPECIFICITY.

AM. Feldmann J., Prieur A.-M., Quartier P., Berquin P., Certain S., Cortis E., Teillac-Hamel D., Fischer A., de Saint Basile G.;

"Chronic infantile neurological cutaneous and articular syndrome is caused by mutations in CIAS1, a gene highly expressed in polymorphonuclear cells and chondrocytes.";

Am. J. Hum. Genet. 71:198-203 (2002).

Interacts selectively with apoptosis-associated specklike protein Interacts selectively with apoptosis-associated specklike protein containing a CARD domain (ASC). This complex may function as an upstream activator of NF kappa-B signaling.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TISSUE SPECIFICITY: Expressed in blood leukocytes. Strongly expressed in polyamorphonulclear cells, undetectable or expressed at a lower magnitude in B and T lymphoblasts, respectively. High level of expression detected in chondrocytes. Low or no expression in the other tissues tested.

DISEASE: Defects in CIASI are a cause of familial cold autoinflammatory syndrome (FCAS) [MIM:120100]; commonly known as familial cold unticaria. FCAS is rare autosomal dominant systemic inflammatory disease characterized by episodes of rash, arthralgia, fever and conjunctivitis after generalized exposure to
                                                                                                                                                     VARIANT FCAS MET-198, VARIANTS MWS ASN-303; MET-348; THR-439 AND ARG-569, AND VARIANT FCAS/WWS TRP-260.
MEDLINE=21987640; PubMed=11992256;
Dode C., Le Du N., Cuisset L., Letourneur F., Berthelot J.-M., Vaudour G., Meyrier A., Watts R.A., Scott D.G.I., Nicholls A., Granel B., Frances C., Garcier F., Edery P., Boulinguez S., Domerques J.-P., Delpech M., Grateau G.; "New mutations of CIAS1 that are responsible for Muckle-Wells syndrome and familial cold urticaria: a novel mutation underlies both
Zhang Q.-H., Ye M., Wu X.-Y., Ren S.-X., Zhao M., Zhao C.-J., Fu G., Shen Y., Fan H.-Y., Lu G., Zhong M., Xu X.-R., Han Z.-G., Zhang J.-W., Tao J., Huang Q.-H., Zhou J., Hu G.-X., Gu J., Chen S.-J., Chen Z., "Cloning and functional analysis of cDNAs with open reading frames for stem/progenitor cells.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Name=1;
IsoId=Q96P20-2; Sequence=VSP_005520, VSP_005521;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Event=Alternative splicing; Named isoforms=3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Isold=096P20-1; Sequence=Displayed;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Name=2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            <del>:</del>
```

818 875 904 937 961 989 695 260 305 775 890 303 Leucine-rich repeat; DOMAIN 1 981 939 966 966 260 303 305 MIM; 606416; -. REPEAT DOMAIN VARSPLIC VARSPLIC VARSPLIC VARIANT VARIANT VARIANT DOMAIN REPEAT REPEAT REPEAT REPEAT REPEAT REPEAT This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the Buropean Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way SIMILARITY: Contains 1 DAPIN domain.
SIMILARITY: Contains 7 leucine-rich (LRR) repeats.
SIMILARITY: Contains 1 NACHT domain.
CAUTION: Ref. 4 sequence differs from that shown due to frameshifts in positions 893, 918 and 926. DISEASE: Defects in CIA&I are a cause of Muckle-Wells syndrome (MWS) [MIM:191900]; a rare autosomal dominant fever syndrome with episodic utricaria, arthralgia, amyloidosis and progressive esnorimental deafness.

DISEASE: Defects in CIA&I are the cause of chronic infantile neurologic cutaneous and articular syndrome (CINCA) [MIM:607115]; and of moonatal onset multisystem inflammatory disease, or NOMID, a rare congenital inflammatory disorder characterized by a triad of moonatal onset of cutaneous symptoms, chronic meningitis, and joint manifestations with recurrent fever and

nflammation.

loved. Usage by and for commercial
(See http://www.isb-sib.ch/announce/ R MIM; 607115;

R MO; 607115;

R GO; GO:0006954; P:inflammatory response; NAS.

R GO; GO:0006954; P:inflammatory response; IMP.

R GO; GO:00016954; P:inflammatory response; IMP.

GO; GO:0001615; P:e:gral transduction; NAS.

R InterPro; IPR001611; IRR. RNinh.

R InterPro; IPR003590; IRR. RNinh.

R InterPro; IPR003590; IRR. RNinh.

R InterPro; IPR003790; IRR. RNinh.

R Pfam; PF05729; NACHT; 1.

R Pfam; PF05729; NACHT; 1.

R Pfam; PF05729; NACHT; 1.

R RPROFITE; PR00191; LEUICHRPT.

R RART; SM00368; LRR. RI; 3.

R RROSITE; PS50824; DAPIN; 1.

R Alternative splicing; Apoptosis; Deafness; Disease mutation; Leucine-rich repeat; Repeat. /FTIG=VAR 013227.
R -> W (in FCAS and MWS).
/FTIG=VAR 014104.
D -> N (in CINCA and MWS).
/FTIG=VAR 014105.
L -> P (in FCAS and MWS). Missing (in isoform 1). /FTId=VSP 005521. V -> M (in FCAS and MWS) /FTId=VSP 005519. Missing (in isoform 1). /FTId=VSP 005520. (in isoform 3). /FTIG=VAR 014124. F -> S (in CINCA) NACHT. LRR 1. LRR 2. LRR 4. LRR 5. LRR 5. LRR 6. LRR 6. LRR 6. entities requires a license agreement (or send an email to license@isb-sib.ch) ALT_INIT. ALT_INIT. ALT_INIT. ALT_FRAME. Missing JOINED. JOINED. JOINED. JOINED. JOINED. JOINED. JOINED. JOINED. JOINED. DAPIN. JOINED. JOINED EMBL; AF410477; AAL33908.1; -. EMBL; AF427617; AAL33911.1; -. EMEL, AVOSGOS, AALIZ497.1; JOSEMEL, AYOSGOS, AALIZ497.1; JOSEMEL, AYOSGOS, AALIZ497.1; JOSEMEL, AYOSI112; AALIZ498.1; JOSEMEL, AYOSI113; AALIZ498.1; JOSEMEL, AYOSI114; AALIZ498.1; JOSEMEL, AYOSI114; AALIZ498.1; JOSEMEL, AYOSI114; AALIZ498.1; JOSEMEL, AYOSI115; AALIZ498.1; JOSEMEL, AYOSI116; AALIZ498.1; JOSEMEL, AYOSOO3; AALIG469.1; ALEMBL, AYOSOO3; AALIG460.1; ALEMBL, AYOSOO3; AALIG40.1; ALEMBL, AYOSOO3; AALIGA, AALIGA, AYOSOO3; AALIGA, AALIGA, AALIGA, AYOSOO3; AALIGA, AALIGA, AYOSOO3; AALIGA, AALIGA, AYOSOO3; AALIGA, AALIGA, AYOSOO3; AALIGA, AALIGA, AALIGA, AALIGA, AALIGA, AYOSOO3; AALIGA, A 309 309 VARIANT

.,

```
270
                                                                                                                                                                                                                                                                                                                                                                                                                                             330
                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                  186
                                                                                                                                                                                                                                                                                                                                                                                             210
                                                                                                                                                                                                                                                                                                                                                                                                                                 303
                                                                                                                                                                                                                                                                                              Ħ
                                                                                                                                                                                                                                                                                                                      20
                                                                                                                                                                                                                                                                                                                                 99
                                                                                                                                                                                                                                                                                                                                              94
                                                                                                                                                                                                                                                                                                                                                                     150
                                                                                                                                                                                                                                                                                                                                                                                                         244
921
           915
                      981
                                   975
                                                    RESULT 5
Q6TG35
ID Q6TG35
AC Q6TG35;
                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                       g
                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                          요
                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                          ઠ
                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                              ò
                                 g
                   ð
8 8
                                                                                                                                                                                                                                                                                                                                                     740
                                                                                                                                                                                                                                                                                                                                                                             800
                                                                                                                                                                                                                                                                                                                                                                                                    860
                                                                                                                                                                                                                                                                                                                                                                                                                854
                                                                                                                                                                                                                                                                                                                                                                                                                           680
                                                                                                                                                                                                                                                                                                                                         700
                                                                                                                                                                                                                                                                                                                                                                 734
                                                                                                                                                                                                                                                                                                                                                                                        794
                                                                                                                                                                                                                                                                                                     620
                                                                                                                                                                                                     HVEILGESEAERKEYFYKYFHNAEGAGQVENYVRDNEPLFTWCFVPLVCWVCTCLQQQL 391
                                                                                                                                                                                                                                                                             560
                                                                                                                                                                                                                                                                                         602
                                                                                                                                                                                                                                                                                                                 661
                                                                                                                                                                                    EGGGLLRQTSRTTTAVYMLYLLSLMQPKPGAPRLQPPPNQRGLCSLAADGLWNQKILFEE 451
                                                                                                                                                                                                                                         482
                                                                                                                                                                                                                                                     503
                                                                                                                                                                                                                                                                 542
                                                                                                                                                      271
                                                                                                                                                                 302
                                                                                                                                                                              331
                                                                                     ----RDPQETYRDYVRRKFRLMEDRNARLGECVNLSHRYTRLLLVKEHSNPMQVQQQLLD 151
                                                                                                             211
                                                                                                                                         243
                                                                  9
                                                                              95
                                                       69
                                                                                                                                                                                                                                                                            801 PHLVELDLIGNALEDLGHRILCOGLRHPVCRLRTIWLKICRLTAAACDELASTLSVNQSL
                                                                                                                                                                                                                                                                                                     KMDLLOWIQSKAQSDGSTLQQGSLEFFSCLYEIQEEEFIQQALSHFQVIVVSNIASKWEH
                                                                                                                                                                                                                                                                                                           MVSSFCLKRCRSAQVLHLYGATYSADGEDRARCSAGAHTLLVQLRPERTVLLDAYSEHLA
                                                                                                                                                                                                                                                                                                                                     AALCTNPNLIELSLYRNALGSRGVKLLCQGLRHPNCKLQNLRLKRCRISSSACEDLSAAL
                                                                                                                                                                                                                                                                                                                                                            QVQCVPPD------THVAC---SSRLVNCCLTSSFCRGLFSSL
                                                                                                                                                                                                                                                                                                                                                                             IANKNLTRMDLSGNGVGFPGMMLLCEGLRHPQCRLQMIQLRKCQLESGACQEMASVLGTN
                                                                                                                                                                                                                                                                                                                                                                                    QKLVELDLSDNALGDFGIRLLCVGLKHLLCNLQKLWLVSCCLTSACCQDLALVLSSNHSL
                                                                                                                                                                                                                                                     ODLRKHGLDGEDVSAFLNMNIFOKDINCERYYSFIHLSFOEFFAAMYYILDE-----
                                                                                                                                                                                                                                                           TGRGHARTVGHQASPIKIETLFEPDEERPEPPRTVVMQGAAGIGKSMLAHKVMLDWADGK
                                                                                                                                                      LFQGRFDYLFYINCREMNQSATECSMQDLIFSCWPEPSAPLQELIRVPERLLFIIDGFDE
                                                                                                                                                            244 LFKDKEDYLFFIHCREVS-LRTPRSLADLIVSCWPDPNPFVCKILRKPSRILFLMDGFDE
                                                                                                                                                                             LKPSFHDPQGPWCLCWEEKRPTELLILNSLIRKKLLPELSLLITTRPTALEKLHRLLEHPR
                                                                                                                                                                                                                                    CRLSTYLEELEAVELKKFKLYL-GTATELGEGKIPWGSMEKAGPLEMAQLLITHFGPEEA
                                                             Gaps
                             Query Match
Best Local Similarity 46.6%; Pred. No. 4.2e-159;
Matches 500; Conservative 165; Mismatches 307; Indels 101;
 31 LRR 5.
164 LRR 6.
18R 7.
118274 MW; 5924690966B12117 CRC64;
                                                                                WRLALSTFERINRKDLWERGOR-----
   931
964
988
   908
937
965
965
1033 AA;
                                                                                                                                                                                                                                                                                            543
                                                                                                                                                                                                                                                                                                         561
                                                                                                                                                                                                                                                                                                                                                                                741
                                                                                                                                                                                                                                                                                                                    603
                                                                                                                                                                                                                                                                                                                                621
                                                                                                                                                                                                                                                                                                                                             662
                                                                                                                                                                                                                                                                                                                                                        681
                                                                                                                                                                                                                                                                                                                                                                   701
                                                                                                                                                                                                                                                                                                                                                                                           735
                                                                                                                                                                                                                                            423
                                                                                                                                                                                                                                                         452
                                                                                                                                                                                                                                                                                504
                                                                                                                                                                                                         332
                                                                                                                                                                                                                     363
                                                                                                                                                                                                                                 392
   REPEAT
REPEAT
REPEAT
SEQUENCE
                                                                                                                                                         212
                                                                                                                                                                                272
                                                                                                                                                                                             303
                                                                                                                     126
                                                                                                                                 152
                                                         7
                                                                    9
                                                                                 70
                                                                                             99
                                                                                                          96
                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                            강 원
                                                                                                                                                                                                                                                                                                                                                                                                    õ
                                                                                                                                                                                                                                                                                                                                         ద
                                                                                                                                                                                                                                                                                                                                                        8 8
                                                                                                                                                                                           g
                                                                                                                                                                                                                  임
                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                  엄
                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                        6 6 6
                                                                                                                                            g
                                                                                                                                                         ò
                                                                                                                                                                   g
                                                                                                                                                                                ò
                                                                                                                                                                                                       õ
                                                                                                                              ð
                                                                                          g
                                                                                                         ò
                                                                                                                   셤
     당담담당
                                                          à
                                                                    셤
                                                                                 ò
```

```
11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRHVEILGFSEAERKEYFYKYFHNAEQAGQVFNYVRDNEPLFTMCFVPLVCWVVCTCLQQ 389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       93
DLSFNDLGDWGLWLLAEGLQHPACKLQKLWLDSCGLTAKACENLYFTLGINQTLTDLYLT 980
                                                                           974
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          126 SICKWKKDYRKKYRKYVRSRFQCIEDRNARLGESVSLNKRYTRLRLIKEHRSQOEREGEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LDTGRGHARTVGHQASPIKIETLFEPDEERPEPPRTVVMQGAAGIGKSMLAHKVMLDWAD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GKLFQGRFDYLFYINCREMNQSATECSMQDLIFSCWPEPSAPLQELIRVPERLLFILDGF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DELKPSFHDPQGPWCLCWEEKRPTELLLNSLIRKKLLPELSLLITTRPTALEKLHRLLEH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CRLSTYLBELEAVELKKFKLYL-GTATELGEGKIPWGSMEKAGPLEMAQLLITHFGPEEA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ----LVRDPQETYRDYVRRKFRLMEDRNARLGECVNLSHRYTRLLLVKEHSNPMQVQQQL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                               VLRSNALGDTGIRLLCEGLLHPDCKL@MLELDNCSLTSHSCWNLSTILTHNHSLRKLNLG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The second of th
                                                                                                                                                                                    Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                157;
                                                                                                                                             NNALGDTGVRLLCKRLSHPGCKLRVLWLFGMDLNKMTHSRLAALRVTKPYLDI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 977;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiers (Human).
Bukaryota, Metazoa; Chordata; Craniata; Vertebrata; Butele
Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.
NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                              05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
Cryopyrin deletion 4 isoform.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 44.1%; Pred. No. 1.4e-151;
Matches 473; Conservative 164; Mismatches 279;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WRIALSTFERINRKDLWERGORED-------
                                                                                                                                                                                                                                                                                                                                                                                                  Ž
                                                                                                                                                                                                                                                                                                                                                                                                  977
                                                                                                                                                                                                                                                                                                                                                                                                  PRT;
                                                                                                                                                                                                                                                                                                                                                                                                  PRELIMINARY;
```

g

요 δ

ઠે

유 ò 셤

8

a

δ

g

ò

g

ò 요 ò 셤 ò 원 ò 셤

ò

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    283 HPVSFLMSSLLRKVMLPEASLLVTTRLTTSKRLKQLLKNHHYVELLGMSEDAREEYIYQF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                13 LSTYLEELEAVELKKFKLYLGTATELGEGKIPWGSMEKAGPLEMAQLLITHFGPEEAWRL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  73 ALSTFERINRKDLWERGQRE------DLVRDPQET----YRDYVRRKF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SLKIFGKWNLKDLCERAKBEINWSAQTIGPDDAKAGETQEDQEAVLGDGTEYRNRIKEKF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   111 RIMEDRNARIGECVNLSHRYTRLLLVKEHSNPMQVQQQLLDTGRGHARTVGHQASPIKIE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     135 CITWDKKSLAGKPEDFHHG-----IAEKDRKL------LE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TLFEPDEERPEPPRTVVMQGAAGIGKSMLAHKVMLDWADGKLFQGRFDYLFYINCREMNQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SATECSMODLIFSCWPEPSAPLOELIRVPERLLFIIDGFDELKPSFHDPQGPWCLCWEEK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          224 -LKERSFAQLISKDWPSTEGPIEEIMYQPSSLLFIIDSFDELNPAFEEPEFALCEDWTQE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RPTELLLNSLIRKKLLPELSLLITTRPTALEKLHRLLEHPRHVEILGFSEAERKEYFYKY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         tch 32.9%; Score 1799; DB 1; Length 1093; al Similarity 37.4%; Pred. No. 4e-119; 413; Conservative 177; Mismatches 388; Indels 126;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MW; 124EEACE22A11D6F CRC64;
                                                                      -!- SIMILARITY: Contains 11 leucine-rich (LRR) repeats.
                     Nat. Rev. Immunol. 3:371-382(2003).
-!- FUNCTION: Involved in inflammation (Potential)
-!- SIMILARITY: Contains 1 DAPIN domain.
                                                                                                                                                                                                                                                                                                                      InterPro; IPR00938; ARM.
InterPro; IPR001611; LRR.
InterPro; IPR001611; LRR.
InterPro; IPR0070911; LRR.RNinh.
InterPro; IPR0070911; NACHT NTP886.
InterPro; IPR004020; PAAD_DAPIN.
Ffam; PF05729; NACHT; 1.
Ffam; PF05729; NACHT; 1.
PR0NITS; PR00013; LEURICHRPT.
PROSITE; PS50834; NACHT; 1.
PROSITE; PS50834; NACHT; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LER 1.
LER 3.
LER 4.
LER 5.
LER 5.
LER 7.
LER 8.
LER 9.
LER 9.
LER 10.
LER 11.
                                                                                                                                                                                                                                                         EMBL; AY154469; AAO18165.1; -. EMBL; BK001107; DAA01240.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1093 AA; 124732
                                                                                                                                                                                                                                                                                           HSSP; P10775; 2BNH.
Genew; HGNC:22939; NALP14.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      869
894
926
979
1008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DOMAIN
REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REPEAT
REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                      482
                                                                                                                      509
                                                                                                                                                      542
                                                                                                                                                                                          560
                                                                                                                                                                                                                         602
                                                                                                                                                                                                                                                           620
                                                                                                                                                                                                                                                                                                                                                                                              740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          918
                                                                                                                                                                                                                                                                                           661
                                                                                                                                                                                                                                                                                                                             680
                                                                                                                                                                                                                                                                                                                                                              703
                                                                                                                                                                                                                                                                                                                                                                                                                                714
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        858
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DLSFNDLGDWGLWLLAEGLQHPACRLQKLWLDSCGLTAKACENLYFTLGINQTLTDLYLT 980
EEQDLRKHGLDGEDVSAFLNMNIFQKDINCERYYSFIHLSFQEFFAAMYYILDEGEGGAG
                                                                                                                                                                                                                                                                             MVSSFCLKRCRSAQVLHLYGATYSADGEDRARCSAGAHTLLVQLRPERTVLLDAYSEHLA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ------RGLG-----SHGLG-------RGCLSHECCFDISLVLSSN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          681 AALCTNPNLIELSLYRNALGSRGVKLLCQGLRHPNCKLQNLRLKRCRISSSACEDLSAAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  741 IANKNLTRMDLSGNGVGFPGMMLLCEGLRHPQCRLQMIQLRKCQLESGACQEMASVLGTN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       QKIVELDISDNALGDFGIRLLCVGLKHLLCNLKKIWIVSCCLTSACCODLASVLSTSHSL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RELDLSLNELGDLGVLLLCEGLRHPTCKLQTLRLGICRLGSAACEGLSVVLQANHNLREL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TRLYVGENALGDSGVAILCEKAKNPQCNLQKLGLVNSGLTSVCCSALSSVLSTNQNLTHL
                                                     QLEGGGLLRQTSRTTTAVYMLYLLSLMQPKPGAPRLQPPPNQRGLCSLAADGLWNQKILF
                                                                                                                                                                                        -----PDQDVTRLLTEYAFSERSFLALTSRFLFGLLNEETRSHLEKSLCWKVSPHI
                                                                                                                                                                                                         XMDLLQWIQSKAQSDGSTLQQGSLEFFSCLYEIQEEFIQQALSHFQVIVVSNIASKWEH
                                                                                                                                                                                                                                                                                                                                                                                                                                ---CVLPS-----SSHAAC----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PHIVELDLIGNALEDLGLRLLCQGLRHPVCRLRTLWLKICRLTAAACDELASTLSVNQSL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NNALGDTGVRLLCKRLSHPGCKLRVLWLFGMDLNKWTHSRLAALRVTKPYLDI 1033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                           MVSSPCIENCHRVESLSL-GFLHNMPKEEEEERKEGRHLDMVQ------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAIL HUMAN STANDARD; PRT; 1093 AA.

Q86W24; Q7RTR6;
29-MAR-2004 (Rel. 43, Last sequence update)
29-MAR-2004 (Rel. 44, Last annotation update)
05-JUL-2004 (Rel. 44, Last annotation update)
NACHT-, LRR- and PYD-containing protein 14 (Nucleotide-binding oligomerization domain protein 5).

Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
MEDLINE=22651535; PubMed=12766759; DOI=10.1038/nri1086;
Inohara N., Nunez G.;
"NOD8: intracellular proteins involved in inflammation and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   [1] — REQUENCE FROM N.A. MEDLINE=22451042; PUDMed=12563287; DOI=10.1038/nrm1019; TSChOpp J., Martinon P., Burns K.; "NALPB: a novel protein family involved in inflammation."; Nat. Rev. Mol. Cell Biol. 4:95-104(2003).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Craniata; Vertebrata; E
Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Bukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                           662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         919
                                                                                                                    450
                                                                                                                                                                                        510
                                                                                                                                                                                                                                                                                           603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     801
                                                   390
                                                                                   423
                                                                                                                                                      483
                                                                                                                                                                                                                                                         561
                                                                                                                                                                                                                                                                                                                           621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   715
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          981
```

223

ACCOCCOS REPAREMENT OF THE STATE OF THE STAT

72

Gaps

```
ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                     ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            950 WLDSCGLTAKACENLYFTLGINQTLTDLYLTNNALGDTGVRLLCKRLSHPGCKLRVLWLF 1009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                QTLRLGICRLGSAACEGLSVVLQANHNLRELDLSFNDLGDWGLWLLAEGLQHPACRLQKL 949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               769
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 811
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CRLRILWIKICRLIAAACDELASTLSVNQSLRELDISLNELGDLGVLLLCEGLRHPTCKL 889
                                                                                                                                                         522
                                                                                                                                                                                                                                                                                                                                                                                                                                             709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            751
                                                                                                                                                                                                                                                                                                    641
                                                                                                                                                                                                                                                                                                                                                                                                        691
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          apoptosis.";
                                                                                                                                                                                                                                                      638 VFEKKILKTSLPTNTWDGDRITHCWQDLCSVLHT-----NEHLRELDLYHSNLDKSAMN
                                                                                                                                                                                                                                                                                                                                                                                                                                           -----AAALCTNPNLIELSLYRNALGSRGVKLLCQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                               I.HELRHPNCKLQKĻLLKFITFPDGCQDISTSLIHNKNLMHLDLKGSDIGDNGVKSLCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GLRHPNCKLONIRLKRCRISSSACEDLSAALIANKNLTRMDLSGNGVGFPGMMLLCEGLR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HPQCRLQMIQLRKCQLESGACQEMASVLGTNPHLVELDLTGNALEDLGLRLLCQGLRHPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -----TYSADGEDRARC----SAGAHTILVQLRPERTVLLDAYSEHL-----
                                                                                                                                                         FLNMNIFOKDINCERYYSFIHLSFQEFFAAMYYIL----DEGEGGAGPDQDVTRLLTEYA
                                                                                                                                                                                                                                                                                                                      FHNAEQAGQVENYVRDNEPLFTMCFVPLVCWVVCTCLQQQLEGGGLLRQTSRTTTAVYML
                                                                                                         PSERSFLALTSRFLFGLLNEETRSHLEKSLCWKVSPHIKMDLLQWIQSKAQSDGSTLQQG
                                                                                                                                                                                                                                                                                              SLEPFSCLYEIQEBEFIQQALSHFQVIVVSNIASKMEHWVSSFCLKRCRSAQVLHLYGA-
                                     YLLSIMQP-KPGAPRLQPPPNQ---RGLCSLAADGLWNQKILFBEQDLRKHGLDGEDVSA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Chordata; Craniata; Vertebrata; Euteleostomi; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
MEDLINE=22651535; PubMed=12766759;
Inohara N., Nunez G.;
"Nobs: Intracellar proteins involved in inflammation Nat. Rev. Immunol. 3:371-382(2003).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       KEAFDEEAOKLLEAVGVSNPHLII 1075
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GMDLNKMTHSRLAALRVTKPYLDI 1033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (TrEMBLrel. 26, C
(TrEMBLrel. 26, I
(TrEMBLrel. 26, I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens (Human)
Eukaryota, Metazoa,
Mammalia, Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-MAR-2004 (
01-MAR-2004 (
01-MAR-2004 (
NOD6.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Name=NOD6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     692
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          752
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           770
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                830
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  890
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         710
                                                                                                                                 403
                                                                                                                                                                                                                                                                                                             583
                                                                                                                                                                                                                                                                                                                                                                                642
                                                             343
                                                                                                411
                                                                                                                                                                                                                                       523
                             351
                                                                                                                                                                    467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     THE SET OF SET O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8 8
                                                                                                                                                                                                                                                                                                                                                                                                             8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                           ò
                                                           셤
                                                                                                à
                                                                                                                          쉱
                                                                                                                                                                ò
                                                                                                                                                                                                  ద
                                                                                                                                                                                                                               ò
                               ે
```

```
616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    722 RLKRCRISSSACEDLSAALIANKNLTRMDLSGNGVGFPGMMLLCEGLRHPQCRLQMIQLR 781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        665 IFTSVYRGHDS--ELFKAVLHNPHLKLLSLYGTSLSQSDIRHLCETLKHPMCKIBELILG 722
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    661
                                                                                                                                                                                                                                                                                                                                               18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     254
                                                                                                                                                                                                                                                                                                                                                                                                                                              STFERINKKDIWERGOREDLVRDPOETYRDYVRRKFRLMEDRNARLGECVNLSHRYTRLL 134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   194
                                                                                                                                                                                                                                                                                                                                                                                                                73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IHLSFOEFFAAMYYILDEGEGGAGPD-QDVTRLLTEYAFSERSFLALTSRFLFGLLNEET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RSHLEKSLCWKVSPHIKMDLLQWIQSKAQSDGSTLQQGSLEFFSCLYEIQEEFIQQALS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VOLRPERTVLLDAYSEHLAAALCTNPNLIELSLYRNALGSRGVKLLCQGLRHPNCKLONL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HFQ--VIVVSNJASKMEHNV-SSFCLKRCRSAQVLHLYGATYSADGEDRARCSAGAHTLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    255 LIRVPERLIFILDGFD-----ELKPSFHDPQGPWCLCWEEKRPTELLINSLIRKKLLPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          : |||:|||:|||:|||:
216 IFSQPERILFIMDGFEQLKFNLQLKADLSDD------WRQRQPMFILLSSLLQKKMLPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       309 LSLLITTRPTALEKLHRLLEHPRHVEILGFSEAERKEYFYKYFHNAEQAGQVFNYVRDNE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PLFTMCFVPLVCWVVCTCLQQQLEGGGLLRQTSRTTTAVYMLYLLSLMQPKPGAPRLQPP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PNQ---RGLCSLAADGLWNQKILFEEQDLRKHGLDGEDVSAFLNMNIFQKDINCERYYSF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GKSMLAHKVMLDWADGKLFQGRFDYLFYINCREMNQSATECSMQDLIFSCWPEPSAPLQE
                                                                                                                                                                                                                                                                                                                                                                                                 14 YLKELRKEBEFWKFKELLKQPLEKFELKPIPWAELKKASKEDVAKLLDKHYPGKQAWEVTL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 128 WKNEY-----HTVVLEGPDGI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LVKEHSNPMQVQQQLLDTGRGHARTVGHQASPIKIETLFEPDEERPEPPRTVVMQGAAGI
                                                                                                                                                                                                                                                                                                                                                                             YLBELBAVELKKPKLYLGTATELGEGK-IPWGSMEKAGPLEMAQLLITHFGPEBAWRLAL
                                                                                                                                                                                                                                                                                                                                               85;
                                                                                                                                                                                                                                                                                                            an
sequence shown here is derived from third party annotation (TPA) entry.
     -!- MISCELLANEOUS: The sequence shown here is derived BMEL/GenBank/DDBJ third party annotation (TPA) er EMEL; BKO01114, DA0401247.1; -.

InterPro; IPR001304; Lectin_C.

InterPro; IPR001511; LRR.

InterPro; IPR007111; NACHT NTPASE.

InterPro; IPR007111; NACHT NTPASE.

InterPro; IPR001301; RAD DAPIN.

InterPro; IPR001301; RAD DAPIN.

InterPro; IPR001301; PAD DAPIN.

InterPro; IPR001301; LAR L1 4.

Pfam; PP05729; NACHT; 1.

PFAM; PP05729; NACHT; 1.

PROSITE; PS00824; DAPIN; 1.

PROSITE; PS00825; RIBOSOWAL, S2 1; UNKNOWN 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     369
                                                                                                                                                                                                                                                                                                                                                                                          91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            135
                                                                                                                                                                                                                                                                                                                                                                                                                                                           75
                                                                                                                                                                                                                                                                                                                       Query Match
Best Local
```

3

셤

ò

셤

ઠે

g

ò

셤

ਨੇ 셤

ò

```
485
                                                                                                                                                                                                                                                                                                                                                                                                                                                               616
                                                                                                                                       428
                                                                                                                                                                                                                                                                            443
                                                                                                                                                                                                                                                                                                           544
                                                                                                                                                                                                                                                                                                                                         503
                                                                                                                                                                                                                                                                                                                                                                     604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      722
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             843 DSCKDIAAVLICNGKLKTLKLGHNEIGDTGVRQLCAALQHPHCKLECLGLGTCFTTRACC 902
   254
                                                                                                                                                                                                                                                                                                                                                                                                    563
                                                                                                                                                                                                                                                                                                                                                                                                                                661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      V------YWRELCSMFITNKNFQILDMENTSLDDPSLAILCKALAQPVCKLRKL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           665 IPTSVYPGHDS--ELFKAVLHNPHLKLLSLYGTSLSQSDIRHLCETLKHPMCKIEELILG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GKSMLAHKVMLDWADGKLFQGRFDYLFYINCREMNOSATECSMQDLIFSCWPEPSAPLQE
                                                                                                                       LSLLITTRPTALEKLHRLLEHPRHVEILGFSEAERKEYFYKYFHNAEQAGQVFNYVRDNE
                                                                                                                                                                                   PLFTMCFVPLVCWVVCTCLQQQLEGGGLLRQTSRTTTAVYMLYLLSLMQPKPGAPRLQPP
                                                                                                                                                                                                                                                429 PNQ----RGLCSLAADGLWNQKILFEEQDLRKHGLDGEDVSAFLNWNIFQKDINCERYYSF
                                                                                                                                                                                                                                                                            387 VNRARLKSLCALAAEGIWTYTFVFSHGDLRRNGLSESEGVWWVGMRLLQRRGDC---FAF
                                                                                                                                                                                                                                                                                                           486 IHLSFQEFFAAMYYILDEGEGGAGPD-QDVTRLLTEYAFSERSFLALTSRFLFGLLNEET
                                                                                                                                                                                                                                                                                                                            545 RSHLEKSLCWKVSPHIKMDLLQWIQSKAQSDGSTLQQGSLEFFSCLYEIQEEEFIQQALS
                                                                                                                                                                                                                                                                                                                                                                                       504 VSMLETSFGFPLSKDLKQEITQCLESLSQCEADREALAFQELFIGLFETGEKEFVTKVNN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VQLRPERTVLLDAYSEHLAAALCTNPNLIELSLYRNALGSRGVKLLCQGLRHPNCKLQNL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      722 RLKRCRISSSACEDLSAALIANKNLTRMDLSGNGVGFPGMMLLCEGLRHPQCRLQMIQLR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    KCQLESGACQEMASVLGTNPHLVELDLTGNALEDLGLRLLCQGLRHPVCRLRTLWLKICR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LTAAACDELASTLSVNQSLRELDLSLNELGDLGVLLLCEGLRHPTCKLQTLRLGICRLGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AACEGLSVVLQANHNLRELDLSFNDLGDWGLWLLAEGLQHPACRLQKLWLDSCGLTAKAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gorilla gorilla (gorilla).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Butheria, Primates, Catarrhini, Hominidae, Gorilla.
NCBI_TaxID=9593,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        962 ENLYFTLGINQTLTDLYLTNNALGDTGVRLLCKRLSHPGCKLRVL 1006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ::: | :|| | | | | | | ::|
DDIAAALIACKTLRSLNLDWIALDADAVVVLCEALSHPDCALQML 947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Created)
Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          25-0CT-2004 (TrEMBLrel. 28,
25-0CT-2004 (TrEMBLrel. 28,
25-0CT-2004 (TrEMBLrel. 28,
Cryopyrin (Fragment).
Name=CTAS1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A
                                                                                                                                                                                                                  329
                              157
                                                            255
                                                                                                                       309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 723
   195
                                                                                                                                                                                   369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q68U61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 9
Q68U61
                           셤
                                                            8
                                                                                  g
                                                                                                                     ò
                                                                                                                                                   요
                                                                                                                                                                                  8
                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                 요
                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RXXCOCSUCTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                ENLYFTLGINQTLTDLYLTNNALGDTGVRLLCKRLSHPGCKLRVLWLFGMDLNKMTHSRL 1021
                                                                                                                                                                                                                  962
                                                            901
                                                                                         842
                                                                                                                     961
                                                                                                                                                     902
 841
                              782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                73
               DIAAALIACKTLRSLNLDWIALDADAVVVLCEALSHPDCALQMLGLHKSGFDEETQKIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             14 YLKELRKEBFWKFKELLKQPLEKFELKPIPWAELKKASKEDVAKLLDKHYPGKQAWEVTL
                                                                                                                                       STPERINRKDLWERGOREDLVRDPQETYRDYVRRKFRLMEDRNARLGECVNLSHRYTRLL
KCQLESGACQEMASVLGTNPHLVELDLTGNALEDLGLRLLCQGLRHPVCRLRTLWLKICR
                                                          LTAAACDELASTLSVNQSLRELDLSLNELGDLGVLLLCEGLRHPTCKLQTLRLGICRLGS
                                                                                                                     AACEGLS VVLQANHNLRELDLS FNDLGDWGLWLLAEGLQHPACRLQKLWLDSCGLTAKAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          YLEELEAVELKKFKLYLGTATELGEGK-IPWGSMEKAGPLEMAQLLITHFGPEEAWRLAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LVKEHSNPMQVQQQLLDTGRGHARTVGHQASPIKIETLFEPDEERPEPPRTVVMQGAAGI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               85;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               27.5%; Score 1505.5; DB 2; Length 986; 34.2%; Pred. No. 2.9e-98; ive 193; Mismatches 383; Indels 85;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.

MEDLINE=22451042; PubMed=12563287;
Tschopp J., Martinon F., Burns K.,

"NALDE: a novel protein family involved in inflammation.";

Nat. Rev. Mol. Cell Biol. 4:95-104(2003).

EMBL; AY154464; AAO18160.1;

HSSP; PIO775; 28NH.

InterPro; IPR001304; Lectin_C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PS00962; RIBOSOMAL S2 1; UNKNOWN 1.
986 AA; 112592 WW; B4248B46F70413B2 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                 Created)
Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 UR InterPro; IPR001611; IRR.

DR InterPro; IPR001011; IRR.

DR InterPro; IPR007011; IRR.

DR InterPro; IPR004010; PAND DAPIN.

InterPro; IPR004020; PAND DAPIN.

R Pfam; PF00560; IRR 1; 4.

R Pfam; PF02729; NACHT; 1.

R Pfam; PF0278; PAND DAPIN;

R PROSITE; PS00615; C_TYPE LECTIN_1; UNKNOWN_1.

PROSITE; PS50824; DAPIN; 1.

PROSITE; PS50824; DAPIN; 1.

PROSITE; PS50837; NACHT; 1.
                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                       986
                                                                                                                                                                                                                                                                                                                                                      PRT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative 193;
                                                                                                                                                                                                                                                                                                                                                                                 01-JUN-2003 (TrEMBLrel. 24, 01-JUN-2003 (TrEMBLrel. 24, 01-MAR-2004 (TrEMBLrel. 26,
                                                                                                                                                                                                                                             1022 AALRVTKPYLDI 1033
                                                                                                                                                                                                                                                                963 MSVEEKIPHLTI 974
                                                                                                                                                                                                                                                                                                                                                      PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local Simi
Matches 344;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PROSITE; I
SEQUENCE
                                                                                                                     902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              16
                           723
                                                         842
                                                                                       783
                                                                                                                                                   843
                                                                                                                                                                                962
                                                                                                                                                                                                              903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                      Q86W27
                                                                                                                                                                                                                                                                                                                       RESULT
Q86W27
```

PAC OCC CON DAY BY THE SERVICE OF TH

셤

ò

요

ઠે g

ò

CIAS1.";

mouse

191

Gaps

13;

58

```
298 WGLCSLAADGIWNQKILFEESDLRNHGLQKADVSAFLRMNLFQKEVDCEKFYSFIHMTFQ 357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               192 AGIGKSMLAHKVMLDWADGKLFQGRFDYLFYINCREMNQSATECSMQDLIFSCWPEPSAP 251
                                                                                                                                                                                                                                                                                                                                                                                                                          59 AGIGKTILARKIMLDWASGTLYQDRFDYLFYIHCKEVS-LVTQRSLGDLIMSCCPDPNPP 117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  252 LQELIRVPERLLFIIDGFDELKPSFHDPQGPWCLCWEEKRPTELLLNSLIRKKLLPELSL 311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LITTRPTALEKLHRLLEHPRHVEILGFSEAERKEYFYKYFHNAEQAGQVFNYVRDNEPLF 371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              372 IMCFVPLVCWVCTCLQQQLEGGGLLRQTSRTTTAVYMLYLLSLMQPKPGAPRLQPPPNQ 431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RGLCSLAADGLWNQKILFEEQDLRKHGLDGEDVSAFLNWNIFQKDINCERYYSFIHLSFQ 491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ETRSHLEKSLCWKVSPHIKMDLLQWIQSKAQSDGSTLQQGSLEFFSCLYEIQEEFIQQA 602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BFFAAMYYILDE------GEGGAGPDQDVTRLLTEYAFSERSFLALTSRFLFGLLNE
                                                                                                                                                                                                                                                                                                             132 RLLLVKEHSNPMQVQQQLLDTGRGHARTVGHQASPIKIETLFEPDEERPEPPRTVVMQGA
                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
PubMed=15302403; DO=10.1016/j.gene.2004.05.002;
PubMed=15302403; DO=10.10.i., Rosengren S., Boyle D.L., Schaner P.,
Canderson J.P., Mueller J.L., Rosengren H.M.;
Cannon S.B., Goodyear C.S., Hoffman H.M.;
"Structural, expression, and evolutionary analysis of mouse CIAS1.";
Gene 338.55-34(2004).
EMBL; AY338197; AAR03566.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae; Cercopithecinae; Theropithecus.
                                                                                                                                                                                                                          27.0%; Score 1475.5; DB 2; Length 54.7%; Pred. No. 1.6e-96;
                                                                                                                                                                                                                                                                     98; Mismatches 119; Indels
                                                                                                                                                               506 506
506 Aa; 58812 MW; FBAC1357A5087C5E CRC64;
"Structural, expression, and evolutionary analysis of Gene 338:25-34(2004).
EMBL, AY338198, AAR03567.1; -.
PICHIPPO: IPR00711; NACHT_NTPase.
PR05729; NACHT; 1.
PR0571E; PS50837; NACHT; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             603 LSHFQVIVVSNIASKMEHMVSSFCLKRC 630
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Theropithecus gelada (Gelada baboon).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        25-OCT-2004 (TrEMBLrel. 28, 25-OCT-2004 (TrEMBLrel. 28, 25-OCT-2004 (TrEMBLrel. 28,
                                                                                                                                                                                                                                                     Best Local Similarity 54.74
Matches 278; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Cryopyrin (Fragment).
Name=CIAS1;
                                                                                                                                           NON TER
NON TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           492
                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  068060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 11
06806
AC 06806
AC 06806
DT 25-0C
DT 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        원
               FIRRREFFS
                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                          ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                   132 RILLVKEHSNPMQVQQLLDTGRGHARTVGHQASPIKIETLFEPDEERPEPPRTVVMQGA 191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGIGKSMLAHKVMLDWADGKLFQGRFDYLFYINCREMNQSATECSMQDLIFSCWPEPSAP 251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RGLCSLAADGLWNQKILFEEQDLRKHGLDGEDVSAFLNMNIFQKDINCERYYSFIHLSFQ 491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             298 WGLCSLAADGIWNQKILFEESDLRNHGLQKADVSAFLRWNLFQKEVDCEKFYSFIHWTFQ 357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EFFAAMYYILDEGEGGAG------PDQDVTRLLTEYAFSERSFLALTSRFLFGLLNE 542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ETRSHLEKSLCWKVSPHIKMDLLQWIQSKAQSDGSTLQQGSLEFFSCLYEIQEBEFIQQA 602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      28
                                                                                                                                                                                                                                                                                                                                                                                                            252 LOELIRVPERLIFILDGFDELKPSFHDPOGPWCLCWEEKRPTELLLNSLIRKKLLPELSL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LITTRPTALEKLHRLLEHPRHVEILGFSEAERKEYFYKYFHNAEQAGQVFNYVRDNEPLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TMCFVPLVCWVVCTCLQQQLEGGGLLRQTSRTTTAVYMLYLLSLMQPKPGAPRLQPPPNQ
               PubMed=15302403; DOI=10.1016/j.gene.2004.05.002; Anderson J.P., Mueller J.L., Rosengren S., Boyle D.L., Schaner P., Cannon S.B., Goodyear C.S., Hoffman H.M.; Structural, expression, and evolutionary analysis of mouse CIAS1."; Gene 338:25-34(2004).

EMBL; AY338196; AR03565.1; -. Interpro; IPR007111; NACHT_NTPase.
PÉam; PP05729; NACHT; 1.
                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Macaca sylvanus (Barbary ape).
Sukaryota; Metazoa; Chordate; Craniata; Vertebrata; Buteleostomi;
Mammalia; Butheria; Primates; Catarrhini; Cercopithecidae;
Cercopithecinae; Macaca.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
PubMed=15302403; DOI=10.1016/j.gene.2004.05.002;
Anderson J.P., Mueller J.L., Rosengren S., Boyle D.L., Schaner cannon S.B., Goodyear C.S., Hoffman H.M.;
                                                                                                                                                                                                                                                                                                                                           13;
                                                                                                                                                                                                                                                                                                  DB 2; Length 506;
                                                                                                                                                                                                                                                                                                27.3%; Score 1493.5; DB 2; Length 55.3%; Pred. No. 8.4e-98; attive 97; Mismatches 117; Indels
                                                                                                                                                                                                                                     506 506
506 Aa; 58685 MW; BAA2A16BD583CAE4 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LSHFQVIVVSNIASKMEHMVSSFCLKRC 630
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         : : | | : |:::|:||||||:: | MDYFPKIEI-NLSTRMDHVVSSFCIENC 504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       25-0CT-2004 (TrEMBLrel. 28, Created)
25-0CT-2004 (TrEMBLrel. 28, Last seq
25-0CT-2004 (TrEMBLrel. 28, Last ann
                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Cryopyrin (Fragment).
                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                Query Match
Best Local Simi]
Matches 281; (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Name=CIAS1;
                                                                                                                                                                                                               NON TER
NON TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Q68U59;
Q68U59;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q68U59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
```

```
NON TER
NON TER
SEQUENCE
                                                                         133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NON TER
NON TER
SEQUENCE
                                                                                                             193
                                                                                                                                                 253
                                                                                                                                                                                                                                                                               299
                                                                                                                                                                                                                                                                                                 493
                                                                                                                                                                                                                                                                                                                    359
                                                                                                                                                                                                                                                                                                                                     543
                                                                                                                                                                                                                                                                                                                                                       419
                                                                                                                                                                                                                                                                                                                                                                          603
                                                                                                                                                                                                                                                                                                                                                                                           479
                                                                                                                                                                                                                                                             433
                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                               Q68U53
                                                                         8
                                                                                          셤
                                                                                                             8
                                                                                                                            g
                                                                                                                                                ò
                                                                                                                                                                 셤
                                                                                                                                                                                    δ
                                                                                                                                                                                                   a
                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                  191
                                                                                                                                      251
                                                                                                                                                         117
                                                                                                                                                                            311
                                                                                                                                                                                     371
                                                                                                                                                                                                                                 237
                                                                                                                                                                                                                                                                                                 431
                                                                                                                                                                                                                                                             491
                                                                                                                                                                                                                                                                                                                            EFFAAMYYILDEGEGGAG-----PDQDVTRLLTEYAFSERSFLALTSRFLFGLLNE 542
                                                                                                                                                                                                                                                                                                                                                               ETRSHLEKSLCWKVSPHIKMDLLQWIQSKAQSDGSTLQQGSLEFFSCLYBIQEBEFIQQA 602
                                                                                                                                                                                                                                                                                                                                                                           28
                                                                                                                                               RLLLVKEHSNPMQVQQQLLDTGRGHARTVGHQASPIKIETLFEPDEERPEPPRTVVMQGA
                                                                                                             AGIGKSMLAHKVMLDWADGKLFQGRFDYLFYINCREMNQSATECSMQDLIFSCWPEPSAP
                                                                                                                                                                          LOELIRVPERLLFIIDGFDELKPSFHDPQGPWCLCWEEKRPTELLLNSLIRKKLLPELSL
                                                                                                                                                                                                               LITTRPTALEKLHRLLEHPRHVEILGFSEAERKEYFYKYFHNAEQAGQVFNYVRDNEPLF
                                                                                                                                                                                                                                                   TMCFVPLVCWVCTCLQQQLEGGGLLRQTSRTTTAVYMLYLLSLMQPKPGAPRLQPPPNQ
                                                                                                                                                                                                                                                                                        RGLCSLAADGLWNQKILFEEQDLRKHGLDGEDVSAFLNMNIFQKDINCERYYSFIHLSFQ
                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PubMed=15302403; DOI=10.1016/j.gene.2004.05.002; Anderson J.P., Mueller J.L., Rosengren S., Boyle D.L., Schaner P., Cannon S.B., Goodpaar C.S., Hoffman H.M.; Structural, expression, and evolutionary analysis of mouse CIAS1."; Gene 338:25-34(2004).

EMBL; AY338201; AAR03570.1; -. Interpro; IPR07111; NACHT_NTPase.
Pfam; PF05729; NACHT; 1.

PROSITE; PS50837; NACHT; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Euteleostomi;
Alouattinae;
                                                                                 13;
                                                             27.0%; Score 1475.5; DB 2; Length 506; 54.7%; Pred. No. 1.6e-96; ttive 98; Mismatches 119; Indels 13;
                                  506 AA; 58737 MW; 3355EE2362C1D008 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Alouatta belzebul (Black-and-red howler monkey).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Primates; Platyrrhini; Cebidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                    LSHFQVIVVSNIASKMEHMVSSFCLKRC 630
                                                                                                                                                                                                                                                                                                                                                                                                            : : | | : |::::|:|||||: | mDYFPKIEI-NLSTRMDHVVSSFCIENC 504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRT;
InterPro; IPR007111; NACHT_NTPase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    25-OCT-2004 (TrEMBLrel. 28, 25-OCT-2004 (TrEMBLrel. 28, 25-OCT-2004 (TrEMBLrel. 28,
         Pfam; PF05729; NACHT; 1. PROSITE; PS50837; NACHT; 1.
                                                                       Best Local Similarity 54.79
Matches 278; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   25-OCT-2004 (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Cryopyrin (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=30590;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Name=CIAS1;
                          NON TER
NON TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                   478
                                                                                                   132
                                                                                                                                                         29
                                                                                                                                                                                                                                                                    238
                                                                                                                                                                                                                                                                                                          298
                                                                                                                                      192
                                                                                                                                                                                                                                178
                                                                                                                                                                                                                                                  372
                                                                                                                                                                                                                                                                                        432
                                                                                                                                                                                                                                                                                                                           492
                                                                                                                                                                                                                                                                                                                                                                543
                                                                                                                                                                                                                                                                                                                                                                                 418
                                                              Query Match
                                                                                                                                                                           252
                                                                                                                                                                                                               312
                                                                                                                                                                                                                                                                                                                                              358
                                                                                                                                                                                                                                                                                                                                                                                                    603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Alouatta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  068056
                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q68U56
DR
DR
FT
SO
                                                                                                                   g
                                                                                                                                                       g
                                                                                                                                                                                           g
                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                     ઠે
                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                               ઠ
                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                    유
```

```
ņ
                                                                                                                                                                                                                                                                                 252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       418
                                                                                                                                                                                    192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            492
                                                                                                                                                                                                                                  59
                                                                                                                                                                                                                                                                                                         239 MCFIPLVCHIVCTGLKQQMESGKSLAQTSKTTTAVYIFFLSSLLQPRGGSQEHPLSAHLW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GLCSLAADGIWNQKILFEESDLRNHGLQKADVSAFLRMNLFQKEVDCEKFYSFIHMTFQE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FFAAMYYIL-DEGEGGAG-----PDQDVTRLLTEYAFSERSFLALTSRFLFGLLNE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LLLVKEHSNPMQVQQQLLDTGRGHARTVGHQASPIKIETLFEPDEERPEPPRTVVMQGAA
                                                                                                                                                                                                            2 LALIKEHRSQQEREQELLIGR--TKTADSPVSPIRMELLFEPDAEHSEPVHTVVFQGAA
                                                                                                                                                                                                                                                                                 GIGKSMLAHKVMLDWADGKLFQGRFDYLFYINCREMNQSATECSMQDLIFSCWPEPSAPL
                                                                                                                                                                                                                                                                                                                                                                           QELIRVPERLLFIIDGFDELKPSFHDPQGPWCLCWEEKRPTELLLNSLIRKKLLPELSLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     313 ITTRPTALEKLHRLLEHPRHVEILGFSEAERKEYFYKYFHNAEQAGQVFNYVRDNEPLFT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               373 MCFVPLVCWVVCTCLQQQLEGGGLLRQTSRTTTAVYMLYLLSLMQPKPGAPRLQPPPNQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GLCSLAADGLWNQKILFEEQDLRKHGLDGEDVSAFLNMNIFQKDINCERYYSFIHLSFQE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ETRSHLEKSLCWKVSPHIKMDLLQWIQSKAQSDGSTLQQGSLEFFSCLYEIQEEFIQOA
                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          mouse CIAS1.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Cebus apelia (Brown-capped capuchin).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Eutheria; Primates; Platyrrhini; Cebidae; Cebinae; Cebus.
NCBI_TaxID=9515;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                <u>:</u>
                                                                                                                                      14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.

PubMed=15302403; DOI=10.1016/j.gene.2004.05.002;

PubMed=15302403; DOI=10.1016/j.gene.2004.05.002;

Anderson J.P., Mueller J.L., Rosengren S., Boyle D.L., Schaner I. Cannon S.B., Goodyear C.S., Hoffman H.M.;

"Structural, expression, and evolutionary analysis of mouse CIAK Gene 338:25-34(2004).

EMBL, AY330204; AAR03573.1; --

InterPro, IPR007111, NACHT_NTPage.

Pfam; PF05729; NACHT.
                                                                                            Length 500;
                                                                                     Query Match
26.9%; Score 1474; DB 2; Length 5
Best Local Similarity 56.1%; Pred. No. 2e-96;
Matches 282; Conservative 89; Mismatches 118; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   57708 MW; 055D921C39DDB6D7 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Created)
Last sequence update)
Last annotation update)
                                              0761E81FEE4ED992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              500 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MDYFPKIEI-NLSTRMDHVVSSF 500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LSHFQVIVVSNIASKMEHMVSSF 625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRT;
1 1
500 500
500 AA; 57619 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     25-OCT-2004 (TrEMBLrel. 28, 25-OCT-2004 (TrEMBLrel. 28, 25-OCT-2004 (TrEMBLrel. 28,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PROSITE; PS50837; NACHT; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Cryopyrin (Fragment).
Name=CIAS1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   500 AA;
```

ઠ 셤 δ 유 8 셤

```
132 RILLIVKEHSNPMOVQOQLLDTGRGHARTVGHQASPIKIETLFBPDEERPEPPRTVVMQGA 191
                                                                                                                                                                                                                                                                                                                        298 WGLCSLAADGIWNQKILFEESDLRNHGLQKADVSAFLRNNLFQKEVDCEKFYSFIHMTFQ 357
                                                                                                                                                                                                                                                                                                                                                                                   418 BRICYLEKKLSCKISQQIRLELLKWIEVKAKAKKMQIQPSQLELFYCLYEMQEEDFVQRA 477
                                                                                                                                                                                                                                            TMCEVPLVGWVVCTCLQQQLEGGGLLRQTSRTTTAVYMLYLLSLMQPKPGAPRLQPPNQ 431
                                                                                                                                                                                                                                                               RGLCSLAADGLWNQKILFEEQDLRKHGLDGEDVSAFLNWNIFQKDINCERYYSFIHLSFQ 491
                                                                                                                                          BFFAAMYYILDBGBGGAG------PDQDVTRLLTEYAFSERSFLALTSRFLFGLLNE
                                                                                                                                                                                                                                                                                                                                                                                                                            ETRSHLEKSLCWKVSPHIKMDLLOWIQSKAQSDGSTLQQGSLEFFSCLYBIQEEFIQOA
                                                                                                                                                                                 LITTRPTALEKLHRILEHPRHVEILGFSBAERKEYFYKYFHNAEQAGQVFNYVRDNEPLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PubMed=15302403; DOI=10.1016/j.gene.2004.05.002;
PubMed=15302403; DOI=10.1016/j.gene.2004.05.002;
Anderson J.P., Mueller J.L., Rosengren S., Boyle D.L., Schaner P., Cannon S.B., Goodyear C.S., Hoffman H.M.;
Structural; expression, and evolutionary analysis of mouse CIAS1.";
Gene 338:25-34(2004).
EMBL; AY338199; AAR03568.1; -
EMBL; AY338199; NACHI_NTPase.
Pfam; PF05229; NACHI_NTPARE.
   RLLLVKEHSNPMQVQQLLDTGRGHARTVGHQASPIKIETLFEPDEERPEPPRTVVMQGA
                                                             AGIGKSMLAHKVMLDWADGKLFQGRFDYLFYINCREMNQSATECSMQDLIFSCWPEPSAP
                                                                               252 LQELIRVPERLIFIIDGFDELKPSFHDPQGPWCLCWEEKRPTELLLNSLIRKKLLPELSI
                                                                                                                                                                                                 Cercopithecus cephus (moustached monkey).

Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;

Mammalia; Butheria; Primates; Catarrhini; Cercopithecidae;

Cercopithecinae; Cercopithecus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
26.8%; Score 1468.5; DB 2; Length
Best Local Similarity 54.5%; Pred. No. 5.1e-96;
Matches 277; Conservative 98; Mismatches 120; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            58807 MW; 3BD8387BC8ACBB63 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Created)
Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 506 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LSHFOVIVVSNIASKMEHMVSSFCLKRC 630
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ::| | ::|:|:|||||::|
478 MDYFPKIEI-NLSTRMDHVVSSFCIENC 504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              25-OCT-2004 (TrEMBLrel. 28, 25-OCT-2004 (TrEMBLrel. 28, 25-OCT-2004 (TrEMBLrel. 28,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PROSITE; PS50837; NACHT; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Cryopyrin (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    506 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NON TER
NON TER
SEQUENCE
                                                                                                                                                                                           312
                                                                                                                                                                                                                                                     372
                                                                                                                                                                                                                                                                                                                432
                                                                                                                                                                                                                                                                                                                                                                                                       358
                                                                                                                                                                                                                                                                                                                                                                                                                                      543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                603
                                                                                                                                                                                                                                                                                                                                                                           492
           132
                                                                     192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      068058
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q68U58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 15
Q68U58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                         g
                                                                                                                                                                                           ð
                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                ď
                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                  셤
                                                                                                g
                                                                 ∂
                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4;
                               4
                                                         192
                                                                                                                                                                                                                                                                                                                                                                492
                                                                                                                                                                                                                                                                                                                                                                                            358
                                                                                                                                                                                                                                                                                                                                                                                                                       FFAAMYYILDEGEGGAG------PDODVTRLLTEYAFSERSFLALTSRFLFGLLNE 542
                                                                                                                                                                                                                                                                                                                                                                                                                                                       418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GIGKSMLAHKVMLDWADGKLFQGRFDYLFYINCREMNQSATECSMQDLIFSCWPEPSAPL 252
                                                                                                                                                                              QELIRVPERLLFIIDGFDELKPSFHDPQGPWCLCWEEKRPTELLLNSLIRKKLLPELSLL 312
                                                                                                                                                                                                 ITTRPTALEKLHRLLEHPRHVEILGFSEAERKEYFYKYFHNAEQAGQVFNYVRDNEPLFT 372
                                                                                                                                                                                                                                                            MCFVPLVCWVVCTCLQQQLEGGGLLRQTSRTTTAVYMLYLLSLMQPKPGAPRLQPPPNQR 432
                                                                                        59
                                                                                                                                                                                                                                                                                                                                                             GLCSLAADGLWNQKILFEEQDLRKHGLDGEDVSAFLNWNIFQKDINCERYYSFIHLSFQE
                                                                                                                                                                                                                                                                                                                                                                                299 GLCSLAADGIWNQKILFEESDLRNHGLQKADVSAFLRWNLFQKEVDCEKFYSFIHWTFQE
                                                                                                                                                                                                                                                                                                                                                                                                                                          ETRSHLEKSLCWKVSPHIKMDLLQWIQSKAQSDGSTLQQGSLEFFSCLXEIQEBEFIQQA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Colobus guéreza (Black-and-white colobus monkey).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae; Colobinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                          LLLVKEHSNPMQVQQQLLDTGRGHARTVGHQASPIKIETLFEPDEERPEPPRTVVMQGAA
                                                                             mouse CIAS1.";
                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PubMed=15302403; DOI=10.1016/j.gene.2004.05.002; Anderson J.P., Mueller J.L., Rosengren S., Boyle D.L., Schaner P., Cannon S.B., Goodyear C.S., Hoffman H.M.; Structural, expression, and evolutionary analysis of mouse CIASI." EMBL, AX338200, AR03569.1; -. EMBL, AX338200, AR03569.1; -. InterPro; IPR07111; NACHT_NTPase.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            26.9%; Score 1470.5; DB 2; Length 506; 54.5%; Pred. No. 3.7e-96; ive 98; Mismatches 120; Indels 13;
                              14;
                               Indels
   Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    58700 MW; 435425BC125BEAD4 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Last sequence update)
Last annotation update)
26.9%; Score 1471; DB 2; I
llarity 55.9%; Pred. No. 3.3e-96;
Conservative 89; Mismatches 119;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ā
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MDYFPRIEI-NLSTRMDHVVSSF 500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LSHFQVIVVSNIASKMEHMVSSF 625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     25-OCT-2004 (TrEMBLrel. 28,
25-OCT-2004 (TrEMBLrel. 28,
25-OCT-2004 (TrEMBLrel. 28,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PROSITE; PS50837; NACHT; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity 54.55
Matches 277; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Cryopyrin (Fragment).
Name=CIAS1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         506 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                    Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NCBI_TaxID=33548;
                                    Matches 281;
                                                                                                                                                                                                                                                                                                                                        239
                                                                                                                                                                                                                                                                                                                                                                                                                                                             359
                                                                                                                                                                                                                                                                                                          373
                                                                                                                                                                                                                                                                                                                                                                      433
                                                                                                                                                                                                                                                                                                                                                                                                                               493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 479
                                                                 133
                                                                                             0
                                                                                                                           193
                                                                                                                                                                                                                                                 313
       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Colobus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            068057
```

RESULT 14 Q68U57

셤

ò 셤

g

ò

g

ò

셤 ò 셤 ò

ò

542

237

371

117 311

251 28

191

602

4;

13;

`•

```
252 LOELIRVPERLLFIIDGFDELKPSFHDPOGPWCLCWEEKRPTELLLNSLIRKKLLPELSL 311
                                                                             118 IRKIVSKPSRILFLMDGFDELQGAFDEHIGPLCTDWQKARRGDILLSSLIRKKLLPEASL 177
                                                                                                          LITTRPTALEKLHRLLEHPRHVEILGFSEAERKEYFYKYFHNAEQAGQVFNYVRDNEPLF 371
                                                                                                                                                    298 WGLCSLAADGIWNQKILFEESDLRNHGLQKADVSAFLRMNLFQKEVDCEKFYSFIHMTFQ 357
                                                                                                                                                                                                                                                        RGLCSLAADGLWNQKILFEEQDLRKHGLDGEDVSAFLNWNIFQKDINCERYYSFIHLSFQ 491
                                                                                                                                                                                                                                           EFFAAMYYILDEGEGGAG------PDQDVTRLLTEYAFSERSFLALTSRFLFGLLNE 542
                      AGIGKSMLAHKVMLDWADGKLFQGRFDYLFYINCREMNQSATECSMQDLIFSCWPEPSAP 251
1 RLRLIKEHRSQQEREHELLAIGK--TKTWESPVSPIKMELLFDPDDEHSEPVHTVVFQGA 58
                                                                                                                                                                                                                                                                                                                              LSHFQVIVVSNIASKMEHMVSSFCLKRC 630
                                                                                                                                                                                                                                                                                                                                            312
                                                                                                                                                                                                432
                                                                                                                                                                                                                                            492
                      192
                                                                                                                                                                                                                                                                                                                                 603
                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                         ద
                                           유
                                                                                  g
                                                                                                          ઠે
                                                                                                                          g
                                                                                                                                              ò
                                                                                                                                                                        g
                                                                                                                                                                                              ò
                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                 ò
                      ð
                                                              ò
```

Search completed: February 8, 2005, 14:47:06 Job time : 201 secs

Lyis Page Blank (uspto)

us-10-781-294-24.rai

```
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2, Appli
2, Appli
3, Appli
3, Appli
6, Appli
8, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Appl
Appl
Appl
Appl
                                                                                               ; Search time 46 Seconds
(without alignments)
1679.604 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                          US-10-781-294-24
5472
1 MLRTAGRDGLCRLSTYLEEL......MTHSRLAALRVTKPYLDIGC 1035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 4, A
Sequence 12,
Sequence 6, A
Sequence 6, A
Sequence 4, A
Sequence 4, A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 10,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 8, Sequence 2, Sequence 2, Sequence 2, Sequence 2, Sequence 4, Sequence 8, Sequence 8, Sequence 8, Sequence 19, Sequence 43, Sequence 44, S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Description
                                                                                                                                                                                                                                                                                                               513545
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Issued Patents AA:*

(cgn2_6/ptodata/1/iaa/5A_COMB.pep:*
(cgn2_6/ptodata/1/iaa/5B_COMB.pep:*
(cgn2_6/ptodata/1/iaa/6A_COMB.pep:*
(cgn2_6/ptodata/1/iaa/6B_COMB.pep:*
(cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
(cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
(cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
5.1.6
Compugen Ltd,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-388-221B-10

US-09-388-221B-2

US-09-388-221B-4

US-09-388-221B-6

US-08-910-731-6

US-08-910-731-6

US-08-910-731-8

US-08-910-731-8

US-08-910-731-8

US-08-910-731-8

US-08-910-731-8

US-08-910-731-8

US-08-910-731-8

US-09-949-016-9080

US-10-014-269-3

US-09-949-016-9080

US-09-949-016-9080

US-09-949-016-9080

US-09-949-016-9080

US-09-949-016-9080

US-09-949-016-9080

US-09-949-018-9080

US-09-30-308-8

US-09-30-308-8

US-09-30-308-8

US-09-30-308-8

US-09-30-308-8

US-09-30-308-8

US-09-30-308-8

US-09-30-308-8

US-09-30-308-43

US-09-207-359B-43

US-09-207-359B-43

US-09-207-359B-43

US-09-207-359B-43
                                                                                                                                                                                                                                                                                                         Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                             513545 segs, 74649064 residues
 version 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SUMMARIES
                                                                                               8, 2005, 14:41:25
                                                                                                                                                                                                                                                                                                                                                                                            Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                sw model
                                                                                                                                                                                                                                             Gapop 10.0 , Gapext 0.5
 GenCore (c) 1993
                                                                - protein search, using
                                                                                                                                                                                                                                                                                                                                          seq length: 0
seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Copyright
                                                                                               February
                                                                                                                                                                                                                              BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query
Match 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Post-processing:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Scoring table:
                                                                                                                                                                              Perfect score:
                                                                                                                                                                                                                                                                                                                                              Minimum DB
Maximum DB
                                                              OM protein
                                                                                                                                                                                              Sequence:
                                                                                                                                                                                                                                                                            Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Database
                                                                                                Ë
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Run
```

```
APPLICANT: Reed, John C.

TITLE OF INVENTION: No. 6818750el Card Proteins Involved in Cell Death Regulation FILE REFERENCE: P-LJ 3650
CURRENT APPLICATION NUMBER: US/09/388,221B
CURRENT FILING DATE: 1999-09-01
NUMBER OF SEQ ID NOS: 30
SEQ ID NO 10
LENGTH: 1454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; OTHER INFORMATION: Description of Artificial Sequence: Synthetic Construct
US-09-388-221B-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           187 GSPPQPSLAPREQEAPGTQWPLDETSGIYYTEIREREREKSEKGRPPWAAVVGTPPQAHT 246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     219 YLFYINCREMNQSATECSMQDLIFSCWPEPSAPLQELIRVPERLLFIIDGFDELKPSFHD 278
                                                                       26, Appl
26, Appl
26, Appl
30, Appl
7, Appl
11, Appl
11, Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           247 SLOPHHHPWEPSVRESLCSTWPWKNEDFNQKFTÖLLLLORPHPRSODPLVKRSWPDYVEE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              12 RISTYLEBLEAVELKKFKLYLGTA--TELGEGKIPWGSMEKAGPLEMAQLLITHFGPEEA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      70 WRLALSTFERINRKDLWERGQR-------EDLVRDPQETYRDYV-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -----RRKFRLMEDRNARLGECVNLSHRYTRLLLVKEHSNPMQVQ------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ------QQLLDTGRGHARTV-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         --GHQASPIKIETLFEPDEERPEPPRTVVMQGAAGIGKSMLAHKVMLDWADGKLFQGRFD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                              Sequence 1
Sequence 1
Sequence 1
                                          Sequence
Sequence
Sequence
Sequence
                                                                                           Sequence
Sequence
Sequence
Sequence
Sequence
             Sequence
   Sequence
                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 25.1%; Score 1375; DB 4; Length 1454; Best Local Similarity 33.9%; Pred. No. 9.2e-126; Matches 366; Conservative 138; Mismatches 357; Indels 218;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 1454;
US-09-865-364-47
US-09-064-199-19
US-09-064-199-17
US-09-064-199-18
US-09-064-199-18
US-09-064-199-16
US-09-245-281-26
US-09-245-281-26
US-09-245-281-26
US-09-865-364-26
US-10-014-269-30
US-10-014-269-30
US-10-014-269-30
US-09-099-041A-11
US-09-099-041A-11
US-09-340-620R-11
                                                                                                                                                                                                           ALIGNMENTS
                                                                                                                                                                                                                                                             Sequence 10, Application US/09388221B
Patent No. 6818750
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                        TYPE: PRT
ORGANISM: Artificial Sequence
 US-09-388-221B-10
  455.5
377.5
377.5
377.5
315
315
315
315
315
315
315
261
261
261
245
245
245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         161
```

= := ::

QY 70 WRLALSTPERINKKDLWERGQREDLVRDPQETYRDYV 106	107RRKFRLMEDRNARLGECVNLSHRYTRLLLVKEHSNPMQVQ	Db 127 GCTQGSERRVLRQLPDTSGRRWREISASLLYQALPSSPDHESPSQESPNAPISTAVLGSW 180 Qy 147	Db 187 GSPPQPSLAPREQEAPGTQWPLDETSGIYYTEIREREREKSEKGRPPWAAVVGTPPQAHT 246 Qy 147 160	Db 247 SLQPHHHPWEPSVRESLCSTWPWKNEDFNQKFTQLLLLQRPHFRSQDPLVKRSWPDYVEE 306 Oy 161GHQASPIKIETLFEPDEERPEPPRTVVMQGAAGIGKSMLAHKVMLDWADGKLFQGRFD 218	307 NRGHLIBIRDLFGFGLDTQE-PRIVILQGAAGIGKSTLARQVKEAWGRGQLYGDFFQ	Oy 219 YLPYINCREMNOSATECSMODLIFSCWPEPSAPLOGLIRVPERLLFIIDGFDELKPSFHD 278	279 POGPWCLWEEVELLIANSLIKKKLPELSLLITTRPTALEKLHRLEHPRHVEILGF	422	OY 339 SEASKETFURE CONTROLL OF THE CONTROL OF T	Qy 399 QTSRTTTAVYMLYLLSLMQPRPGAPRLQPPNQRGLCSLAADGLWNQXLLFEEQDLRXHG 458	Db: 542 LTSKTTTLCLHYLAQALQAQPLGPQLRDLCSLAABGIWQKKTLFSPDDLRKHG 595 Qy 459 LDGEDVSAFLNMNIPQKDINCERPYSFIHLSFQEFFAAMYYILDEGEGGAGPDQDV 514	596	DD 654 EKTLERAKGE-HGLFGAGSTTRFLIGHLISDEGEREMENIFHCRLSQGRNLMQWVPSLQ 708	QY 575 DGSTLQQGSLEFFSCLYEIQBEEFIQQALSHFQVIVVSNIASKWEHMVSSFCLXKRCRSAQ 634	Qy 635 VLHLYGATYSADGEDRARCSAGAHTLLVQLRPERTVLLDAYSEHLAAALCTNPNLIELSL 694	Qy 695 YRNALGSRGVKLLCQGLRHPNCKLQNLRLKRCRISSSACBDLSAALJANKNLTRWDLSGN 754	OY 755 GVGFPGMALLCEGLRHPQCRLQMIQLRKCQLESGACQEMASVLGTNPHLVELDLTGNALE 814	Qy 815 DIGLRILCQGLRHPVCRLRTIWLKICRLTAAACDELASTLSVNQSLRELDLSLNEL 870	CEGLSVVLQANHNLRELDLS 923	Db 986 RRKPSVMTPTEGLDTGEMSNSTSSLKRQRLGSERAASHVAQANLKLLDVS 1035	RESULT 3 US-09-388-221B-4 ; Sequence 4, Application US/09388221B ; Patent No. 6818750
363 HVFYFSCRELAQSKV-VSLAELIGKDGTATPAPIRQILSRPERLLFILDGVDEP	OY 279 POGPWCLCWEEKRYTELLINGLIKKALLFELSLITIKFIALLIKETALLERGERGERGERGERGERGERGERGERGERGERGERGERGE	OY 339 SEAERKEYFYKYFHNAEQAGQVFNYVRDNEPLFTMCFVPLVCWVVCTCLQQQLEGGGLLR 398	QY 399 QTSRTTAVYMLYLLSLMQPKPGAPRLQPPPNQRGLCSLAADGLWNQKILFEEQDLRKHG 458		515 TRLITEYAFSERSFLALTSRFLFGLINBETRSHLFKSLCWKVSPHIKMDLLQWIQSKAQS	EXTLEAYGI-HGLFGASTTRFLLGLLSDEGEREMENIFHCRLSQGRNLMQWVPSLQ	OY 575 DGSTLQQGSLEFPSCLYEDGBEEFPQQALSHPQVIVVSNIASKWEMVUSSFCLKKCKSAQ 534 DD 709LLLQPHSLESLHCLYETRNKTFLTQVWAHFEEMGMC-VETDMELLVCTFCIKFSRHVK 765		Db 766 KLQLIEGRQHRSTWSPIMVVLFRWVFVTDAYWQILFSVLKVTRNEKELDL 815 Ov 695 YENALGSEGVKLLCOGIRHPNCKLONIRLKRCRISSSACEDLSAALIANKOLTRWDLSGN 754		Qy 755 GVGFPGMALLCEGLRHPQCRLQMIQLRKCQLESGACQEMASVLGTNPHLVELDLTGNALE 814	815 DIGLRILCQGIRHPVCRLRTLWLKICRLTAAACDELASTLSVNQSLRELDLSLNEL	Db 936 DVGVRLLCEGLRHPACKLIRLGLDQTTLSDEMRQELRALEGEKPQLLIFS 985	986 RRKPSVMTPTEGLDTGEMSNSTSSLKRQRLGSERAASHVAQANLKLLDVS		GENERAL INFORMATION: APPLICANT: Reed, John C. TITLE OF INVENTION: No. 6818750el Card Proteins Involved in Cell Death Regulation TITLE DESCRIPTION: D-17 3660		; SEQ ID NO 2 ; LENGTH: 1473 ; TYPE: PRT COLONIEM.		Query Match 25.1%; Score 13/2; Dellyin 14/3; Best Local Similarity 33.9%; Pred. No. 9.46-126; Matches 366; Conservative 138; Mismatches 357; Indels 218; Gaps 23;	QY 12 RLSTYLEELEAVELKKFKLYLGTATELGEGKIPWGSMEKAGPLEMAQLLITHFGPEEA 69

```
6818750el Card Proteins Involved in Cell Death Regulation
                                                                                                 814
                                                                                                                       ; OTHER INFORMATION: Description of Artificial Sequence: Synthetic Construct
US-09-388-2218-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        187 GSPPQPSLAPREQEAPGTQWPLDETSGIYYTEIREREREKSEKGRPPWAAVVGTPPQAHT 246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          481
                             754
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99
                                                 816 SGNSLSHSAVKSLCKTLRRPRCLLETLRLAGCGLTAEDCKDLAFGLRANQTLTELDLSFN
                                                                                                                                                                       DLGLRILLCQGLRHPVCRLRTLWLKICRLTAAACDELASTLSVNQSIRELDLSLNELGDLG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     --GHQASPIKIETLFEPDEERPEPPRTVVMQGAAGIGKSMLAHKVMLDWADGKLFQGRFD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ::|| :|||:||| |: ||| 363 HVFYFSCRELAQSKV-VSLAELIGKDGTATPAPIRQILSRPERLLFILDGVDEPGWVLQE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  422 PSSELCLHWSQPQPADALLGSLLGKTILPEASFLITARTTALQNLIPSLEQARWVEVLGF
                               695 YRNALGSRGVKLLCQGLRHPNCKLQNLRLKRCRISSSACEDLSAALIANKNLTRMDLSGN
                                                                                                   GVGFPGMMLLCEGLRHPQCRLQMIQLRKCQLESGACQEMASVLGTNPHLVELDLTGNALE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             12 RLSTYLEELEAVELKKFKLYLGTA--TELGEGKIPWGSMEKAGPLEMAQLLITHFGPEEA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RLACYLEFLKKEELKEFQLLLANKAHSRSSGETP-AQPEKTSGMEVASYLVAQYGEQRA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ----EDLVRDPQETYRDYV-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCTQGSERRVLRQLPDTSGRRWREISASLLYQALPSSPDHESPSQESPNAPTSTAVLGSW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  247 SLQPHHHPWEPSVRESLCSTWPWKNEDFNQKFTQLLLLQRPHPRSQDPLVKRSWPDYVEE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           YLFYINCREMNOSATECSMODLIFSCWPEPSAPLOELIRVPERLLFIIDGFDELKPSFHD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PQGPWCLCWEEKRPTELLLINSLIRKKLLPELSLLITTRPTALEKLHRLLEHPRHVEILGF
                                                                                                                                                                                                                                                                 VLLLCEGL----RHPTCKLQTLRLGICRLGSAACEGLSVVLQANHNLRELDLS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match

24.9%; Score 1360; DB 4; Length 1424;
Best Local Similarity 33.5%; Pred. No. 2.7e-124;
Matches 360; Conservative 133; Mismatches 343; Indels 238;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ----RRKFRLMEDRNARLGECVNLSHRYTRLLLVKEHSNPMQVQ----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -----TOUTGRGHARTV----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-00-189-221B-12
Sequence 12, Application US/09388221B
Fatent No. 6818750
GENERAL INFORMATION:
APPLICANT: Reed, John C.
TITLE OF INVENTION: No. 6818750el Card Protein
FILE REFERENCE: P-LJ 3650
CURRENT APPLICATION UNMER: US/09/388,221B
CURRENT FILING DATE: 1999-09-01
NUMBER OF SEQ ID NOS: 30
SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   70 WRLALSTFERINRKDLWERGOR-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQ ID NO 12
                                                                                                                                                                       815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURE:
                                                       셤
                                                                                                 ò
                                                                                                                         g
                                                                                                                                                                 8
                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
GENERAL INFORMATION:

APPLICANT: Reed, John C.

TITLE OF INVENTION: No. 6818750el Card Proteins Involved in Cell Death Regulation
FILE REFERENCE: P-L3 3650
CURRENT APPLICATION NUMBER: US/09/388,221B
CURRENT FILING DATE: 1999-09-01
SOFTWARE: Patentin Ver. 2.0
SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                     106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              187 GSPPQPSLAPREQEAPGTQWPLDETSGIYYTEIREREREKSEKGRPPWAAVVGTPPQAHT 246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           247 SLQPHHHPWEPSVRESLCSTWPWKNEDFNQKFTQLLLLQRPHPRSQDPLVKRSWPDYVEE 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            219 YLFYINCREMNOSATECSMODLIFSCWPEPSAPLOELIRVPERLLFIIDGFDELKPSFHD 278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  279 PQGPWCLCWEEKRPTELLLNSLIRKKLLPELSLLITTRPTALEKLHRLLEHPRHVEILGF 338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEAERKEYFYKYFHNAEQAGQVFNYVRDNEPLFTMCFVPLVCWVVCTCLQQQLEGGGLLR 398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |--LILQPHSLESLHCLYETRNKTFLTQVMAHFEEMGMC-VETDMELLVCTFCIKFSRHVK 765
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  766 KLQLI-----EGRQHRSTWSPTMVVLFR--WVPVTDAYWQILFSVLKVTRNLKELDL 815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           QTSRTTTAVYMLYLLSLMQPKPGAPRLQPPPNQRGLCSLAADGLWNQKILFEEQDLRKHG 458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LDGEDVSAFLNMNIFQKDINCERYYSFIHLSFQEFFAAMYYILDEGEGGAGPDQ----DV 514
                                                                                                                                                                                                                                                                                                                                                    | ||| |:|: : | : | : | 67 WDLALHTWEQMGLRSLCAQAQEGAGHSPSFPYSPSEPHLGSPSQPTSTAVLMFWIHELPA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 542 LTSKTTTTLCLHYLAQALQAQPLGPQL-----RDLCSLAAEGIWQKKTLFSPDDLRKHG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -----RRKFRLMEDRNARLGECVNLSHRYTRLLLVKEHSNPMQVQ-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       --GHQASPIKIETLFEPDEERPEPPRTVVMQGAAGIGKSMLAHKVMLDWADGKLFQGRFD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            596 LDGAIISTFLKWGILQEH-PIPLSYSFIHLCFQEFFAAMSYVL-EDEKGRGKGKIDL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TRLLTEYAFSERSFLALTSRFLFGLLNEETRSHLEKSLCWKVSPHIKMDLLQWIOSKAQS
                                                                                                                                                                                                                                                                                                                                12 RISTYLEBLEAVELKKFKLYLGTA--TELGEGKIPWGSMEKAGPLEMAQLLITHFGPEEA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -----OQLLDTGRGHARTV----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DGSTLQQGSLEPFSCLYEIQEEFIQQALSHFQVIVVSNIASKMEHMVSSFCLKRCRSAQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               535 VLHLYGATYSADGEDRARCSAGAHTLLVQLRPERTVLLDAYSEHLAAALCTNPNLIELSL
                                                                                                                                                                                                                                                                                                                                                                                                     EDLVRDPQETYRDYV---
                                                                                                                                                                                                                                                             DB 4; Length 1399;
                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                          Query Match 24.9%; Score 1360; DB 4; Best Local Similarity 33.5%; Pred. No. 2.6e-124; Matches 360; Conservative 133; Mismatches 343;
                                                                                                                                                                                                                                                                                                                                                                                                     WRLALSTFERINRKDLWERGOR---
                                                                                                                                                                                                      ORGANISM: Homo sapiens
                                                                                                                                                                                                            , ORGANISM: HOT
US-09-388-221B-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      654
                                                                                                                                                                                                                                                                                                                                                                 œ
                                                                                                                                                                                                                                                                                                                                                                                                    2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       191
                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                   엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
```

Db 127. GCTQGSERRVLRQLPDTSGRRWREISASLLYQALPSSPDHESPSQESPNAPTSTAVLGSW 186	14	DD 187 GSPPQPSLAPREQEAPGTQWPLDETSGIYYTEIREREREKSEKGRPPWAAVVGTPPQAHT 246		30					422 PSSELCIHWSQPQPADALLGSLIGKTILPEASFLLTAKTIALGNILFSLEGARN CACAL	OY 339 SEAERKEYFYRYFINAEDGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG	399 CISRTTAVYMLYLLSLMQPKPGAPRLQPPNQRGLCSLAADGLWNQKILFEEQDLRKHG	542	QY 459 DIGEDVAR ENWALT VACUENCE TO THE TOTAL OF THE TOTAL	515 TRL/IEYAFSERSFLALTSRFLFGLLNBETRSHLEKSLCWKVSPHIKMDLLOWIOSKAOS			709LLLLQFHSLESLHCLIELRANTELLZVERTELLEGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG	DD 766 KLQLIEGRQHRSTWSPIMVUFRWVPVTDAYWQILFSVLKVTRNLKELDL 815	QY 695 YRNALGSRGYKLLCQGLRHPNCKLQNLRLKRCRISSSACEDLSAALIANKNLTRMDLSGN 754	SGNSLSHSAVKSLCKTLRRPRCLLETLRLAGGGLTABDCKDLAFGLRANQTLTELDLSFN			Db 936 DVGVRLLCEGLRHPACK	CEGLSVVLQANHNLRELDLS	DD 961 VMTPTEGLDTGEMSNSTSSLKRQRLGSERAASHVAQANLKLLDVS 1005	RESULT 6 US-08-910-731-6 ; Sequence 6, Application US/08910731	,	
ON 339 SEAERKEYFYKYPHNAEOAGOVFNYVRDNEPLFTMCFVPLVCWVCTCLQQQLEGGGLLR 398	482	66E	542	Qy 459 LDGEDVSAFLNWNIFQKDINCERYYSFIHLSFQEFFAMYYILDEGEGGAGPDQDV 514		OY 515 TRLLTEYAFSERSFLALTSRFLFGLINEETRSHLEKSLCWKVSPHIKMDLLQWIQSKAQS 574	575 DGSTLOOGSLEPFSCLYEIQEEFIQQALSHFQVIVVSNIASKMEHMVSSFCL	407	Qy 635 VLHLYGATYSADGEDRARCSAGAHTLLVQLRPERTVLLDAYSEHLAAALCTNPNLIELSL 694			755 GVGFPGMALLCEGLRHPQCRLOMIQLRKCQLESGACQEMASVLGTNPHLVELDLTGNALE		Qy 815 DLGLRLLCQGLRHPVCRLRTLWLKICRLTAAACDELASTLSVNQSLRBLDLSLNBLGLDLG 8/4 - - 03 BJ DVGYRLLCGGLRHPACK	875 VLLLCEGLRHPTCKLQTLRLGICRLGSAACEGLSVVLQANHNLRELDL	961 VMTPTEGLDTG	יייי ייייי איייייי איייייייייייייייייי	US-09-388-221B-6; Sequence 6, Application US/09388221B	; GENERAL INFORMATION: ; GENERAL INFORMATION: ; APPLICANT: Reed, John C.	Card Fioteins involved in terr beath westerners	CURRENT FILING DATE: 1999-09-01 CURRENT FILING DATE: 1999-09-01 CURRENT FILING DATE: 1999-09-01	; SOFTWAKE: FACENCIN VET. 2.0 ; SEQ ID NO 6 . TENGTH: 1443		B-6	Query Match 24.9%; Score 1360; DB 4; Length 14*3; Best Local Similarity 33.5%; Pred. No. 2.76-124; Matches 340; Conservative 133; Mismatches 343; Indels 238; Gaps 22;	12 RLSTYLEELEAVELKKI : : : PlacyleFikkFFLKE	70 WRIALSTERINRKDLWERGGR	Db 67 WDLALHTWEOMGLRSLCAQAQEGAGHSPSFPYSPSEPHLGSPSQPTSTAVLMPWIHELPA 126 Qy 107RRKFRLMEDRNARLGECVNLSHRYTRLLLVKEHSNPMQVQ 146

```
671 LLDAYSEHLAAALCTNPNLIELSLYRNALGSRGVKLLCQGLRHPNCKLQNLRLKRCRISS 730
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION:
APPLICANT: CHATTERJEE, DEB K.
APPLICANT: SHANDILYA, HARINI
TITLE OF INVENTION: Mammalian Ribonuclease Inhibitors and Use Thereof
NUMBER OF SEQUENCES: 16
CORRESPONDENCE ADDRESS:
ADDRESSEE: STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          :: ||:||: |: ||: ||: ||: ||: || || ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             731 SACEDLSAALIANKNLTRMDLSGNGVGFPGMMLLCEGLRHPQCRLQMIQLRKCQLESGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LOANHNLRELDLSFNDLGDWGLWLLAEGLQHPACRLQKLWLDSCGLTAKACENLYFTLGI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     791 QEMASVLGTNPHLVELDLTGNALEDLGLRLLCQGLRHPVCRLRTLWLKICRLTAAACDEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  851 ASTLSVNQSLRELDLSLNELGDLGVLLLCEGLRHPTCKLQTLRLGICRLGSAACEGLSVV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NQTLTDLYLTNNALGDTGVRLLCKRLSHPGCKLRVLWLFGMDLNKMTHSRLAAL 1024
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 456;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         13.1%; Score 717; DB 2; Length 45
41.5%; Pred. No. 1.2e-61;
tive 66; Mismatches 141; Indels
                                                                                                                                                                                                                       FOX P.L.L.C. C. 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CURRENT APPLICATION DATA:

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/910,731

FILING DATE: (Herewith)

CLASSIFICATION 1435

PRIOR APPLICATION NUMBER: 08/795,395

FILING DATE: 04-FEB-1997

PRIOR APPLICATION DATA:

APPLICATION NUMBER: 08/794,546

FILING DATE: 03-FEB-1997

PRIOR APPLICATION DATA:

APPLICATION NUMBER: 60/794,546

FILING DATE: 03-FEB-1997

PRIOR APPLICATION DATA:

APPLICATION NUMBER: 60/024,057

FILING DATE: 16-AUG-1996

ATTONNEY/AGENT INFORMATION:
                                                                                                                                                                                                          ADDRESSER: STERNE, KESSLER, GOLDSTEIN & STREET: 1100 NEW YORK AVE., N.W., SUITE CITY: WASHINGTON
                                                                                                                                                                                                                                                                                                                                                                                                                                  3: Floppy disk
IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: ESMOND, ROBERT W.
REGISTRATION NUMBER: 32,893
REFERENCE/DOCKET NUMBER: 09-
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-371-2600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           : 456 amino acids
amino acid
                                                                                                                                                                                                                                                                                                        ZIP: 20005-3934
ZIP: 20005-3934
COMPUTER READABLE FORM:
MEDIUM TYPE: Florm:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEFAX: 202-371-2540
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 41.5
Matches 147; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER: IBM PC OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-08-910-731-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            671 LLDAYSEHLAAALCTNPNLIELSLYRNALGSRGVKLLCQGLRHPNCKLQNLRLKRCRISS 730
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 220 CGIVASKASLRELALGSNKLGDVGMAELCPGLLHPSSRLRTLWIWECGITAKGCGDLCRV 279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   731 SACEDLSAALIANKNITRMDLSGNGVGFPGMMLLCEGLRHPQCRLQMIQLRKCQLESGAC 790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             791 QEMASVLGTNPHLVELDLTGNALEDLGLRLLCQGLRHPVCRLRTLWLKICRLTAAACDEL 850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    851 ASTLSVNQSLRELDLSLNEIGDLGVLLLCEGLRHPTCKLQTLRLGICRLGSAACEGLSVV 910
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LOANHNIRELDISFNDLGDWGLWILLAEGLQHPACRLOKLWLDSCGLTAKACENLYFTLGI 970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NQTLTDLYLTNNALGDTGVRLLCKRLSHPGCKLRVLWLFGMDLNKMTHSRLAA 1023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              13.2%; Score 723; DB 2; Length 461; 42.5%; Pred. No. 3.2e-62; Live 64; Mismatches 139; Indels
                                GOLDSTEIN & FOX P.L.L.C. N.W., SUITE 600
                                                                                                                                             COUNTRY: USA
ZIP: 2005-3934
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PAtentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/910,731
FILING DATE: (Herewith)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0942.3440003
                                                                                                                                                                                                                                                                                                                                                                                                                                                      CLASSIPCATION: 435
PRIOR APPLICATION 9435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/795,395
PILING DATE: 04-FEB-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/794,546
PILING DATE: 03-FEB-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 60/024,057
FILING DATE: 16-AUG-1996
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 7
US-08-910-731-4
; Sequence 4, Application US/08910731
                      SEE: STERNE, KESSLER,
: 1100 NEW YORK AVE.,
WASHINGTON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE/DOCKET NUMBER: 09
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-371-2600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              32,893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEFAX: 202-371-2540
INFORMATION FOR SEQ ID NO: 6:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 461 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: not relevant
MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity 42.54
Matches 150; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ESMOND, ROBERT W
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REGISTRATION NUMBER:
                                                                                                                          STATE: D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       , monecone , o
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
```

ö

Gaps

94

```
851 ASTLSVNQSLRELDLSLNELGDLGVLLLCEGLRHPTCKLQTLRLGICRLGSAACEGLSVV 910
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     911 IQANHNLRELDLSFNDLGDWGLWLLAEGLQHPACRLQKLWLDSCGLTAKACENLYFTLGI 970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                731 SACEDLSAALIANKNLTRMDLSGNGVGFPGNMLLCEGLRHPQCRLQMIQLRKCQLESGAC 790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 8, Application US/08910731
Patent No. 5932440
GENERAL INFORMATION:
APPLICANT: CHATTERALE, DEB K.
APPLICANT: SHANDILYA, HARINI
TITLE OF INVERTION: Mammallan Ribonuclease Inhibitors and Use Thereof
NUMBER OF SEQUENCES: 16
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      791 QEMASVLGTNPHLVELDLTGNALEDLGLRLLCQGLRHPVCRLRTLWLKICRLTAAACDEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            671 LLDAYSEHLAAALCTNPNLIELSLYRNALGSRGVKLLCQGLRHPNCKLQNLRLKRCRISS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      13.0%; Score 712; DB 2; Length 456;
42.5%; Pred. No. 3.9e-61;
tive 61; Mismatches 142; Indels
                                                                                                                                         AUDRESSEE: STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C. STREET: 1100 NEW YORK AVE., N.W., SUITE 600 STATE: D.C.
                                                                                                                                                                                                                                                                                                                                                                                                                    Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0942.3440003
                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: Patentin Release #1.0, CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/910,731 FILING DATE: (Herewith)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NOMES AS PRIOR APPLICATION: 435
PRIOR APPLICATION: 435
PRIOR APPLICATION NOMBER: 08/795,395
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/794,546
FILING DATE: 03-FEB-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 66/024,057
FILING DATE: 16-AUG-1996
ATTORNEY/AGENT INPORMATION:
NAME: ESMOND, ROBERT W.
                                                                                                                                                                                                                                                                                  COUNTRY: USA
ZIP: 20005-3934
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME: ESMOND, ROBERT W. REGISTRATION NUMBER: 32,893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-371-2600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   456 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches 150; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEFAX: 202-371-2540
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 456 amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-08-910-731-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 671 LLDAYSEHLAAALCINPNLIELSLYRNALGSRGVKLLCQGLRHPNCKLQNLRLKRCRISS 730
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          851 ASTLSVNQSLRELDLSLNELGDLGVLLLCEGLRHPTCKLQTLRLGICRLGSAACEGLSVV 910
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                275 LRAKQSLKELSLAGNELKDEGAQLLCESLLEPGCQLESLWVKTCSLTAASCPHFCSVLTK 334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SACEDLSAALIANKULTRMDLSGNGVGFPGMMLLCEGLRHPQCRLQMIQLRKCQLESGAC 790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   791 QEMASVLGTNPHLVELDLTGNALEDIGLRLICQGIRHPVCRLRTLWLKICRLTAAACDEL 850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LTEVRCKDIRSAIQANPALTELSLRTNELGDAGVGLVLGGLQNPTCKIGKLSLQNCSLTE 94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LOANHNIRELDISFNDLGDWGLWLLAEGLQHPACRLOKLWLDSCGLTAKACENLYFTLGI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NOTLIDLYLINNALGDIGVRLICKRISHPGCKLRVLWLFGMDLNKMTHSRLAAL 1024
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 4 Application US/08795395;
Patent No. 5965399;
GENERAL INFORMATION:
APPLICANT: CHATTERJEE, DEB K.
APPLICANT: CHATTERJEE, DED K.
APPLICANT: CHATTERJEE, DED K.
APPLICANT: CHATTERJEE, DED K.
APPLICANT: CHATTERJEE, DEB K.
APPLICANT: APPLICANT: CLONING and Expression of Rat Liver and TITLE OF INVENTION: Porcine Liver Ribonuclease Inhibitor
NUMBER OF SEQUENCES: 8
CORRESPONDENCE ADDRESS: 8
ADDRESSE: STERNE, KESSIER, GOLDSTEIN & FOX, P.L.L.C.
STREET: 1100 NEW YORK AVE., N.W., SUITE 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 456;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             n 13.1%; Score 717; DB 2; Length 45
Similarity 41.5%; Pred. No. 1.2e-61;
47; Conservative 66; Mismatches 141; Indels
                                                                                                                                                                                                                                                                                                                                     ZIP: 20005-3934
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0942.3440002
                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWAKE: FACENCIN META:
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/795,395
FILING DATE: 04-FEB-1997
CLASSIFICATION DATA:
APPLICATION DATA:
APPLICATION NUMBER: 60/024,057
FILING DATE: 16-AUG-1996
ATTORNEY AGENT INFORMATION:
NAME: ESMOND, ROBERT W.
REGISTRATION NUMBER: 32,893
REGISTRATION NUMBER: 34,893
REGISTRATION NUMBER: 0942.344000
TELEPHONE: 202-371-2600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               : 456 amino acids amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 13.15
Best Local Similarity 41.55
Matches 147; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEFAX: 202-371-2540
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 456 amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MOLECULE TYPE: protein US-08-795-395-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                linear
                                                                                                                                                                                                                                                                                           STATE: D.C.
COUNTRY: USA
ZIP: 20005-3934
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                731
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
```

Gaps

ö

셤

셤 ઠે

```
LQANHNLRELDLSFNDLGDWGLWLLAEGLQHPACRLQKLWLDSCGLTAKACENLYFTLGI 970
                                                                                                                    851 ASTLSVNQSLRELDLSLNELGDLGVLLLCEGLRHPTCKLQTLRLGICRLGSAACEGLSVV 910
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       731 SAÇEDISAALIANKNITRMDISGNGVGFPGMMILICEGIRHPQCRLQMIQIRKCQLESGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       671 LLDAYSEHLAAALCTNPNLIELSLYRNALGSRGVKLLCQGLRHPNCKLQNLRLKRCRISS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       95 AGCGVLPSTLRSLPTLRELHLSDNPLGDAGLRLLCEGLLDPOCHLEKLOLEYCRLTAASC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QEMASVLGTNPHLVELDLTGNALEDLGLRLLCQGLRHPVCRLRTLWLKICRLTAAACDEL
                                                                                                                                                                               971 NOTLITDLYLINNALGDIGVRLLCKRLSHPGCKLRVLWLFGMDLNKMTHSRLAAL 1024
                                                                                                                                                                                                        13.0%; Score 709; DB 2; Length 456; 42.7%; Pred. No. 7.7e-61; Live 60; Mismatches 143; Indels
                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: CHATTERJEE, DEB K.
APPLICANT: SHANDILYA, HARINI
TITLE OF INVENTION: Cloning and Expression of Rat Liver a
TITLE OF INVENTION: Porcine Liver Ribonuclease Inhibitor
NUMBER OF SEQUENCES: 8
CORRESPONDENCE ADDRESS:
ADDRESSEE: STERNE, KESSLER, GOLDSTEIN & FOX, P.L.L.C.
STREET: 1100 NEW YORK AVE., N.W., SUITE 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY: USA
ZIP: 20005-3934
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US/08/795,395
RILING DATE: 04-FEB-1997
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION DATA:
APPLICATION NUMBER: 60/024,057
FILING DATE: 16-AUG-1996
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                 Sequence 2, Application US/08795395
Patent No. 5965399
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME: ESMOND, ROBERT W.
REGISTRATION NUMBER: 32,893
REFERENCE/DOCKET NUMBER: 09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          : 456 amino acids
amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEFAX: 202-371-2540
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 456 amino ació
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WASHINGTON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CITY: WASH
STATE: D.C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local Simi
Matches 151;
                                                                                                                                                                                                                                                                                                               US-08-795-395-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-08-795-395-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         791
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                             셤
                                                                                           à
                                                                                                                             g
                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
671 LLDAYSEHLAAALCTNPNLIELSLYRNALGSRGVKLLCQGLRHPNCKLQNLRLKRCRISS 730
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                731 SACEDLSAALIANKNLTRMDLSGNGVGFPGMMLLCEGLRHPQCRLQMIQLRKCQLESGAC 790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       791 QEMASVLGTNPHLVELDLTGNALEDLGLRLLCQGLRHPVCRLRTLWLKICRLTAAACDEL 850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         95 AGCGVLPSTLRSLPTLRELHLSDNPLGDAGLRLLCEGLLDPQCHLEKLQLEYCRLTAASC 154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 2, Application US/08910731
Patent No. 5933440
GENERAL INFORMATION:
APPLICANT: CHATTERJEE, DEB K.
APPLICANT: SHANDILYA, HARINI
TITLE OF INVENTION: Mammalian Ribonuclease Inhibitors and Use Thereof
NUMBER OF SEQUENCES: 16
CORRESPONDENCE ADDRESS:
ADDRESSE: STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
STERET: 1100 NEW YORK AVE., N.W., SUITE 600
CITY: WASHINGTON
STATE: D.C.
COUNTRY: USA
ZIP: 20005-3934
                                                                    971 NQTLTDLYLTNNALGDTGVRLLCKRLSHPGCKLRVLWLFGMDLNKMTHSRLAA 1023
                                                                                             ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     13.0%; Score 709; DB 2; Length 456; 42.7%; Pred. No. 7.7e-61; tive 60; Mismatches 143; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PACENTIN Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/910,731
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0942.3440003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PILING DATE: (Herewith)
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION UNDER: 08/795,395
FILING DATE: 04-FEB-1997
PRIOR APPLICATION NUMBER: 08/794,546
FILING DATE: 03-FEB-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 60/24,655
FILING DATE: 16-AUG-1996
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME: ESMOND, ROBERT W.
REGISTRATION NUMBER: 32,893
REFERENCE/DOCKET NUMBER: 094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-371-2600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          INFORMATION FOR SEQ ID NO: 2: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     : 456 amino acids
amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     202-371-2540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Simil
Matches 151; C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TOPOLOGY:
                                                                                                                                                                                                  US-08-910-731-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-08-910-731-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH:
```

ö

ઠ g ò

ठ 셤

632 SAQVLHLYGATYSADGEDRARCSAGAHTLLVQLRPERTVLLDAYSEHLAAALCTNPNLIE 746SVGPTECAALAFVLQHLRRP	Oy 810 GNALEDLGLRILCQGIRHPVCRLRTLWLKICRLTAAACDELASTLSVNQSLRELDLSLNE 869	GENERAL INFORMATION: APPLICANT: Nunez, Gabriel APPLICANT: Nunez, Gabriel APPLICANT: Nanez, Machiro APPLICANT: Nanez, Machiro APPLICANT: Ogur, Yasunori TITLE OF INVENTION: NOD2 Nucleic Acids and Proteins FILE REFERENCE: UN-06445 CURRENT APPLICATION NUMBER: US/10/014,269 CURRENT PILING DATE: 2001-10-26 NUMBER OF SEQ ID NOS: 52 SEQ ID NO 2 LENGTH: 1040 TYPE: PRT CREANTEN: HOMO Sapiens US-10-014-269-2	Ouery Match 9.7%; Score 529; DB 4; Length 1040; Best Local Similarity 25.4%; Pred. No. 1.86-42; Matches 232; Conservative 118; Mismatches 338; Indels 224; Gaps 163 QASPIKIETLFEPDEERPEPPRIVVMQGAAGIGKSMLAHKVMLDWADGKLFQGRFDYL	OY 221 FYINCREMNOGATECANOLIESWHEREAF-LOELIRYPERLIFTIDEDELERPER 276
QY 851 ASTLSVNQSIRELDISLNBLGDLGVLLLCEGIRHPTCKLQTLRLGICRLGSAACEGLSVV 910 DD 215 CGIVASQASLRELDLGSNGLGDAGIAELCPGLLSPASRLKTIMLMECDITASGCRDLCRV 274 QY 911 LQANHNLRELDLSFNDLGDWGLMLLAEGLQHPACRLQKLMLDSCGLTAKACENLYFTLGI 970 DD 275 LQAKETLKELSLAGNKLGDEGARLLCRESLLQPGCQLESLWVKSCSLTAACCQHVSLMLTQ 334 QY 971 NQTLTDLYLTNNALGDTGVRLLCKRLSHPGCKLRVIMLFGMDLNKMTHSRLAAL 1024 QY 971 NQTLTDLYLTNNALGDTGVRLLCKRLSHPGCKLRVIMLFGMDLNKMTHSRLAAL 1024 DD 335 NKHLLELQLSSNKLGDSG1QELCQALSQPGTTLRVLCLGDCEVTNSGCSSLASL 388	RESULT 12 US-10-014-260-3 Sequence 3, Application US/10014269 Sequence 3, Application US/10014269 Sequence 3, Application US/10014269 Sequence 3, Application US/10014269 SERVERT NOT SEQUENCE SEQUENCE SEQUENCE TITLE OF INVENTION: NOD2 Nucleic Acids and Proteins FILE REPRENCE: UM-06645 CURRENT APPLICANT: 2001-10-26 SOURRENT FILING DATE: 2001-10-26 NUMBER OF SEQ ID NOS: 52 SOUTHARE: PatentIn version 3.1 SEQ ID NO 3 LENGTH: 1013 TYPE: PRT TYPE: P	Query Match 9.7%; Score 529; DB 4; Length 1013; Best Local Similarity 25.4%; Pred. No. 1.76-42; Andels 224; Gaps 33; Matches 232; Conservative 118; Mismatches 338; Indels 224; Gaps 33; Qy 163 QASPIKIETLFEPDEERPEPRTVWQGAAGIGKSMLAHKVMLDWADGKLFQRRFDXL 220 Db 243 QKSPATLGLEEFSTPGHLNDDADTVLVWGEAGSGKSTLLLINGAAGDFQ-EFLFV 301 Qy 221 FYINCREMNOSATECSWQLLFSCWPEDSAPLQELIRVPERLLFILDGFDELKPF 276 Db 302 FPFSCRQLQCMAKPLSVRTLLFEHCCWPDVGQEDIFQLLDHPDRVLLTFDGFDEFKFRF 361 Db 362 TDRERHCSPTDPTSVQTLLFNLLGGNLLKNARKVVTSRPANSAFLRKYI 411 CDD 362 TDRERHCSPTDPTSVQTLLFNLLQGNLLKNARKVVTSRPANSAFLRKYI 411	331 R-HVEILGESEAERKEYFYKYFHNAEQAGQVFNYVRDNEPLFTMCFVPLVCWVVCTCLQQ	QY 438 AADGHWNQKILFEEDDIRKYGLIDGEDVSAPINNNFQKDINCERYYSFIHLSFQEFFA 495 Db 527 ALWGLGMCCYVFSAQQLQAAQVSPDDISLGFLVRAKGVVPGSTAPLEFLHITPGCFFA 584 QY 496 AMYXILDEG

```
HD-----PQGPWCLCWEEKRPTELLINSLIRKKLLPELSLLITTRPTALEKLHRLLEHP 330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        R-HVEILGFSEAERKEYFYKYFHNAEQAGQVFNYVRDNEPLFTMCFVPLVCWVVCTCLQQ 389
                                                                                                                                                                                                                                                                                                                496 AMYYILDEG------EGGAGPDQDVTRLLTEYAFSER 526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     527 SFLALITSRFLFGLINEE-----TRSHLEKSLC--WKVSPHIKMDLLQWIQSKAQ 573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       692 ISLYRNALGSRGVKLL--CQGLRHPNCKLQNLRLKRCRISSSACEDLSAALIANKNLTRM 749
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           810 GNALEDLGLRLLCQGLRHPVCRLRTLWLKICRLTAAACDELASTLSVNQSLRELDLSLNE 869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 870 LGDLGVLLLCEGL-RHFTCKLQTLRLGICRLGSAACEGLSVVLQANHNLRELDLSFNDLG 928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DWGLWLLAEGLQHPACRLQKLWLDSCGLTAKACENLYFTLGINQTLTDLYLTNNA---- 983
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SAQVLHLYGATYSADGEDRARCSAGAHTLLVQLRPERTVLLDAYSEHLAAALCTNPNLIE 691
                                                                                                                                                                                                                        392 IDRERHCSPIDP-----TSVQTLLFNLLQGNLLKNARKVVISRPAAVSAF--LRKYI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QASP--IKIETLFEPDEERPEPPRTVVMQGAAGIGKSMLAHKVMLDWADGKLFQGRFDYL
                                                                                                                                                                                                                                                                                                                                                                                               502 LLLQEGG----SPKTTTDMYLLILQHFLLHATPPDSASQGLGPSLLRGRLPTLLHLGRL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | :|: || |||: |
| ST2 HNLQITAAFLAGLLSREHWGLLAECQTSEKALLRRQACARWCLARSLRKH-FHSIPPAAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   273 ÓKSPATLGLEELFSTPGHLNDDADTVLVVGEAGSGKSTLLQRLHLLWAAGQDFÓ-EFLFV
                                                                                                          FYINCREMNOSATECSMODLIFS -- CWPEPSAP--LOBLIRVPERLLFIIDGFDELKPSF
                                                                                                                                                                                                                                                                                                                                                                         390 QL--EGGGLLRQTSRTTTAVYML----YLLSLMQPKPGAPRLQPP-----PNQRGLCSL
                                                                                                                                                                                                                                                                                                                                                                                                                                                            438 AADGLWNQKILFEEQDLRKHGLDGEDVSAFLNWNIFQKDI--NCERYYSFIHLSFQEFFA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          615 AFYLALSADVPPALLRHLFNCGRPGNSPMARLLPTMCIQASEGKDSSVAALLQK---AEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           574 SDGSTL--QQGSLEFFSCLYEIQEEFFIQQALSHFQVIVVSNIASKMEHMVSSFCLKRCR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        750 DLSGNGVGFPGMMLLCEGLRHPQCRLQMIQLRKCQLESGACQEMASVLGTNPHLVELDLT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      883 NNYITAAGAQVLAEGLRG------NTSLQFUGNR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        798 LQLDYNSVGDIGVEQLLPCLGV----CKALYLR--------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 4, Application US/10014269; Patent No. 6835815; GENERAL INFORMATION: APPLICANT: Nunez, Gabriel; APPLICANT: Inohara, Naohiro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1031 VDKĽĠCRDTŘĽĽ 1042
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          984 ---LGDTGVRLL 992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-10-014-269-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    929 1
                                                                                                                                                                                             277
                                                                                                                                                                                                                                                                                                                              442
                        163
                                                                                                                                                                                                                                                                                   331
                                                                                                                                         q
                                                                                                                                                                                                                                      요
                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               요
                                                                                                       ð
                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                              ર્જ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 9080, Application US/09949016

Sequence 9080, Application US/09949016

Patent No. 6812339

GENERAL INFORMATION:
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

CURRENT APPLICATION NUMBER: 60/241,755

PRIOR FILING DATE: 2000-10-20

PRIOR PELLOR DATE: 2000-10-03

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             33;
                                                                                     526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           809
                                                                                                                         AFYLALSADVPPALLRHLFNCGRPGNSPMARLLPTMCIQASEGKDSSVAALLQK---AEP 668
                                                                                                                                                                                                    631
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GNALEDIGIRLICOGIRHPVCRLRTIWLKICRLTAAACDELASTLSVNQSLRELDISINE 869
                                                                                                                                                                                                                                                                                                                                             SAQVLHLYGATYSADGEDRARCSAGAHTLLVQLRPERTVLLDAYSEHLAAALCTNPNLIE 691
                                                                                                                                                                                                                                                                                                                                                                                      -----SVGPT------ECAALAFVLQHLRRP---------VA 794
                                                                                                                                                                                                                                                                                                                                                                                                                                   LSLYRNALGSRGVKLL -- COGLRHPNCKLQNLRLKRCRISSSACEDLSAALIANKNLTRM 749
                                                                                                                                                                                                                                                                                     GEAKSVHAMPĞFIWLIRSLYEMQEERLARKAARGLNV------GHLKLTFC----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ------EGGAGPDQDVTRLLTEYAFSER
                                                                                                                                                                    SFLALTSRFLFGLLNEE-----TRSHLEKSLC--WKVSPHIKMDLLQWIQSKAQ
                                                                                                                                                                                                                                                          SDGSTL--QQGSLEFFSCLYE1QBEEFIQQALSHFQVIVVSNIASKMEHMVSSFCLKRCR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DISGNGVGFPGMMLLCEGLRHPQCRLQMIQLRKCQLESGACQEMASVLGTNPHLVELDLT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LGDLGVLLLCEGL-RHPTCKLQTLRLGICRLGSAACEGLSVVLQANHNLRELDLSFNDLG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         911 VGDEGAQALAEALGDHQS--LRWLSLVGNNIGSVGAQALALMLAKNVMLEELCLEENHLQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DWGLWLLAEGLOHPACRLOKLWLDSCGLTAKACENLYFTLGINQTLTDLYLTNNA----
AADGLWNQKILFEEQDLRKHGLDGEDVSAFLNMNIFQKDI--NCERYYSFIHLSFQEFFA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 9.7%; Score 529; DB 4; Length 1043; Best Local Similarity 25.4%; Pred. No. 1.8e-42; Matches 232; Conservative 118; Mismatches 338; Indels 224;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LOIDYNSVGDIGVEQLIPCIGV----CKALYLR-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1028 VDKĽGCRDTŘĽĽ 1039
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         984 ---LGDTGVRLL 992
                                                                                   AMYYILDEG-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; TYPE: PRT
; ORGANISM: Huma:
US-09-949-016-9080
                                                                                                                            612
                                                                                                                                                                      527
                                                                                                                                                                                                                 699
                                                                                                                                                                                                                                                        574
                                                                                                                                                                                                                                                                                                     728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           750
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              696
                                                                                 496
                                                                                                                                                                                                                                                                                                                                                632
                                                                                                                                                                                                                                                                                                                                                                                                                                   692
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  870
                                                                                                                                                                                                                                                                                                                                                                                        773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   929
                                    쉽
                                                                                                                     g
                                                                                                                                                                    ઠ
                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                  ద
                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
```

614

671

730

631

```
809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   824 ---DNNISDRGICKLIECALHCE-QLQKLALFUNKLTDGCAHSWAKLLACRQNFLALRLG 879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GNALEDLGLRLLCQGLRHPVCRLRTLWLKICRLTAAACDELASTLSVNQSLRELDLSLNE 869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            870 LGDLGVLLLCEGL-RHPTCKLQTLRLGICRLGSAACEGLSVVLQANHNLRELDLSFNDLG 928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           128 GEAKSVHAMPGFIWLIRSLYEMQEBRLARKAARGLNV------GHLKLTFC---- 772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 527 SFLALTSRFLFGLINEE-----TRSHLEKSLC--WKVSPHIKMDLLQWIQSKAQ 573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          669 HNLOITAAFLAGLLSREHWGLLAECQTSEKALLRHQACARWCLARSLRKH-FHSIPPAAP 727
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            574 SDGSTL--QQGSLEFFSCLYEIQEEEFIQQALSHFQVIVVSNIASKWEHMVSSFCLKRCR 631
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SAQVLHLYGATYSADGEDRARCSAGAHTLLVQLRPERTVLLDAYSEHLAAALCTNPNLIE 691
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           773 -----SVGPT-----ECAALAFVLQHLRRP------SVGPT----VA 794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LSLYRNALGSRGVKLL--CQGLRHPNCKLQNLRLKRCRISSSACEDLSAALIANKNLTRM 749
                                                                                                                                                                                                                                                                                                       328
                                                                                                                                                                                                                                                                                                                                        276
                                                                                                                                                                                                                                                                                                                                                                        388
                                                                                                                                                                                                                                                                                                                                                                                                      277 HD-----PQGPWCLCWEEKRPTELLLINSLIRKKLLPELSLLITTRPTALEKLHRLLEHP 330
                                                                                                                                                                                                                                                                                                                                                                                                                           389 TDRERHCSPIDP-----TSVQTLLFNLLQGNLLKNARKVVTSRPAAVSAF--LRKYI 438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     331 R-HVEILGFSEAERKEYFYKYFHNAEQAGOVFNYVRDNEPLFTMCFVPLVCWVVCTCLQQ 389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  438 AADGLWNQKILFEEQDLRKHGLDGEDVSAFLNMNIFOKDI--NCERYYSFIHLSFQEFFA 495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      612 AFYLALSADVPPALLRHLFNCGRPGNSPMARLLPTMCIQASEGKDSSVAALLQK---AEP 668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DISGNGVGFPGMMLLCEGLRHPQCRLQMIQLRKCQLESGACQEMASVLGTNPHLVELDLT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   163 QASP--IKIRTLFEPDEERPEPPRTVVMQGAAGIGKSMLAHKVMLDWADGKLFQGRFDYL
                                                                                                                                                                                                                                                                                            221 FYINCREMNOSATECSMODLIFS -- CWPEPSAP -- LOELIRVPERLLFIIDGFDELKPSF
                                                                                                                                                                                                                                                                                                                                                            390 QL--EGGGLLRQTSRTTTAVYML----YLLSLMQPKPGAPRLQPP-----PNQRGLCSL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
9.6%; Score 526; DB 4; Length 1040;
Best Local Similarity 25.4%; Pred. No. 3.6e-42;
Matches 232; Conservative 117; Mismatches 339; Indels 224; Gaps
APPLICANT: Ogur, Yasunori
TITLE OF INVENTION: NOD2 Nucleic Acids and Proteins
FILE REFERENCE: UW-06445
CURRENT APPLICATION NUMBER: US/10/014,269
CURRENT FILING DATE: 2001-10-26
NUMBER OF SEQ ID NOS: 52
SEQ ID NO 4
LENGTH: 1040
                                                                                                                                              TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                              US-10-014-269-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               750
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 632
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                           요
                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                           염
                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                              ò
```

Search completed: February 8, 2005, 14:50:49 Job time : 53 secs

```
RDYVRREFRANDEDRING OF LIGHT AND A CONTROLL OF THE CONTROLL OF 
                   AK268522 Homo sapi
AK29760 Sequence
AR420469 Homo sapi
AX35340 Mus muscu
AX37388 Mus muscu
AX495377 Mus muscu
AX495377 Mus muscu
AX495376 Mus muscu
AX495376 Mus muscu
AX425168 Homo sapi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /codon_start=1
| protein_ld="CAD35284.1"
| db_xref="GI:21449785"
| translation="MLRTAGRDGLCRLSTYLEELEAVELKKFKLYLGTATELGEGKIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PAT 14-JUN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LCTNPNLIELSLYRNALGSRGVKLLCQGLRHPNCKLQNLRLKRCRISSSACEDLSAAL
IANKNLTRMDLSGNGVGFPGMMLLCEGLRHPQCRLQMIQLRKCQLESGACQEMASVLG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MGSMEKAGPLEMAQLLITHFGPEEAWRLALSTFERINRKDLWERGQREDLVRDPQETY
                                                                                                                                                                                                                          AF427617 Homo sapi
AY092033 Homo sapi
AX417249 Sequence
AX417249 Sequence
AX417249 Sequence
AX71829 Sequence
AX780309 Sequence
AX738201 ADOUATEA
AY338201 ADOUATEA
AY338202 ACUB ape
AY338202 ACUB ape
AY338205 Sequinus
AY38205 Sequinus
AY38205 Sequinus
AY38200 Sequinus
AY38200 Sequinus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AY337288 Mus musc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Reed,J.C., Godzik,A., Chu,Z.L., Pawlowski,K., Fiorentino,L.,
Ariza,M.E. and Stehlik,C.
Paad domain-containing polypeptides, encoding nucleic acids,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              'note="unnamed protein product"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1. .3108
/organism="Homo sapiens"
/mol_type="unassigned DNA"
/db_xref="taxon:9606"
1. .3108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                methods of use
Patent: WO 0226780-A 23 04-APR-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AX417214
Sequence 23 from Patent W00226780.
AX417214
AX417214.1 GI:21449784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ALIGNMENTS
                                                                 AF420469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The Burnham Institute (US)
Location/Qualifiers
                                                                                            22222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens (human)
                                                                                                                                                             3918
2934
2934
3828
3237
1958
                        3579
3857
3857
3102
3116
                                                                                                                                                                                                                                                                                                                           2528
212426
                                                                                                                                                                                                                                                                                                                                                                      2546
2546
11503
11500
12494
1503
11503
11503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
88000.4
88000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
8000.4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 1
AX417214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE
  LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AY364010 Mus muscu
AC106193 Rattus no
AC079499 Mus muscu
AF410477 Homo sapi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
Homo sapi
Homo sapi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapi
Homo sapi
Homo sapi
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapi
Homo sapi
Homo sapi
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
Callithri
                                                                                                                                                        February 8, 2005, 14:54:31; Search time 12939 Seconds (without alignments) 11639.138 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                             3108
1 atgctacgaaccgcaggcag.....atttggacattggctgctga 3108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AX459869
BY116204 F
BY116204 F
BY105146 F
AY116467 F
AX8116205 F
AX8313594 AX8116205 F
AX895460 F
AX116207 F
AX116207 F
AX116207 AX116207 F
AX116207 AX116207 F
AX116207 AX116207 F
AX116207 AX116207 F
AX116207 AX116207 F
AX116207 AX116207 F
AX116207 AX116207 F
AX116207 AX116207 F
AX116207 AX116207 F
AX116207 AX116207 F
                        GenCore version 5.1.6 (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                    4708233 seqs, 24227607955 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                               - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AY116205
AX833594
AX095460
AY116206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AX575503
AX684291
AC150815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AY364010
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AC106193
AC079499
AF410477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AY116207
                                                                                                                                                                                                                                                                                                                                              IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 seq length: 0
seq length: 200000000
                                                                                                                                                                                                                                                       US-10-781-294-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gb_sts:*
gb_sy:*
gb_un:*
gb_vi:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gb ha: *
gb n: *
gb om: *
gb ow: *
gb pat: *
gb p1: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gb_ro:*
                                           Copyright
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        202418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GenEmbl:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query
Match 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          33.3
32.1
25.9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1681.8
1681.8
1616
1616
1511
1256.2
1036.2
997.8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3057
3017
3001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2997.8
2997.8
2759
2644.2
2644.2
                                                                                                                                                                                                                                                                                                                                                   Scoring table:
                                                                                                                                                                                                                                                                               Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Minimum DB &
Maximum DB &
                                                                                                                 OM nucleic
                                                                                                                                                                                                                                                                                                  Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                    Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Database
                                                                                                                                                             Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Result
```

and

ATTCGGAAGAAGCTGCTCCCTGAGCTATCTTTGCTCATCACCACGGCCCACGGCTTTG GAGAAGCTCCACCGTCTGCTGGAGCACCCCAGGCATGTGGAGATCCTGGGCTTCTCTGAG [1021 GCAGAAGGAATACTTCTACAAGTATTTCCACAATGCAGAGCAGGCGGCCAAGTC 1080	1141 TGGGTGGTGTTACCTCCTCCAGCAGCAGCTGGAGGGTGGGGGGCTGTTGAGACAGAC	TCCAGGACCACCACTGCAGTGTACATGCTCTACCTGCTGAGTCTGATGCAACCCAAGCCG GGGGCCCCGCGCGTCCAGCCCCACCCAACCAGGAGAGGTTGTGCTCCTTGGCGGCAGAT I	1321 GGGCTCTGGAATCAGAAAATCCTATTTGAGGAGCAGGACCTCCGGAAGCACGGCCTAGAC 1380 1321 GGGCTCTGGAATCAGAAAATCCTATTTGAGGAGCAGGACCTCCGGAAGCACGGCCTAGAC 1380 1321 GGGAAGAATCAGAAAAATCTTGAGGAAGCAGGACCTCCGGAAGCACGGCCTAGAC 1440		1501 CTGGACGAGGGGGGGGGGGGGGGCCCAGACCAGGACGTGACCAGGCTGTTGACCGAG 1560 	TACGCGTTTTCTGAAAGGAGTTCCTGGCACTCACCGGCGCTTCCTGTTTGGACTCCTG	4 4 4	1681 AAGAIGGACCTGTTGCAGTGGATCCAAAGCAAAGCTCAGAGCGACGGCTCCACCCTGCAG 1740 1741 CAGGGCTCCTTGGAGTTCTTCAGCTGCTGTACGAGATCCAGGAGGAGAGAGGAGTTTATCCAG 1800	1741 CAGGGCTCCTTGGAGTTCTTCAGCTGGTACCAGGAGGAGGAGGAGTTTATCCAG 1800 1801 CAGGCCTGAGCCACTTCCAGGTGATCGTGGTCAGCAACATTGCCTCCAAGATGGAGCAC 1860 1801 CAGGCCTGAGCTCCAGGTGATCGTGGTCAGCAACATTGCCTCCAAGATGGAGCAC 1860	Argererecreerrereaagegergeagagegeeceagraerreseer	1921 GCCACCTACAGGGGGAAGGGGGAAGACGGGGGAAGGTGGTGGGAAGAGGGCAAGAGGTG 1980 1921 GCCACCTACAGGGGGAAGAGACGGGGAAGAGGGCGAAGAGGGCAAGAGGGCAAGAGGGGAAGAGGGGAAGAGGGGAAGAGAGGGGAAGAGA	
ob Oy	64 G	ራ ይ ራ	- da 69	oy do	3 8 8 8	oy Og	& a &	S 8 S	do Qy	4 & 4a	yo da	ò 8 è	දි සි
TNPHLVELDLTGNALEDIGLRILCQGLRHPVCRLRTLMLKICRLTAAACDELASTLSV NOSLRELDLSLMRLGDLGVLLLCGGLRHPTCKLQTLRLGICRLGSAACEGLSVVLQAN HNLRELDLSFNDLGDWGLWLLAEGLQHPACRLQKLWLDSCGLTAKACENLYFTLGINQ TLTDLYLTNNALGDTGVRLLCKRLSHPGCKLRVLWLFGWDLNKWTHSRLAALRVTKPY LDIGG"	Query Match 100.0%; Score 3108; DB 6; Length 3108; Best Local Similarity 100.0%; Pred. No. 0; Matches 3108; Conservative 0; Mismatches 0; Indels 0; Gaps 0; 1 ATGTACGAGGCAGGGAGGACGCCTCTGTCCCTCTCCACTTGGAAGAACTC 60	GAGGCTGTGGAACTGAAGAAGTTCAAGTTATACCTGGGGACCGCGACAGGAAGAAAGA	GGCAAGATCCCCTGGGGAAGCATGGAGAAGCCGGTCCCCTGGAAATGGCCCAGCTGCTC	241 AACAGGAAGGACCAGAGAGAGGCCTGAAGGTTGAGCACCTTTGAGCGGATA 240 241 AACAGGAAGGACCTGTGGGAGAGAGAGAGAGAGACCTGGTGAGGGATCCCCAGGAA 300 241 AACAGGAAGGACCTGTGGGAGAGAGAGAGAGAGACCTGGTGAGGGATCCCCAGGAA 300	ACCTACAGGGACTATGTCCGCAGGAAATTCCGGCTCATGGAAGACCGCAATGCGCAATGCGCAATGCGCAATGCGCAATGCGCAATGCGCAATGCGCAATGCGCAATGCGCCTACAGGAACTACCGGCTCATGGAAGACCGCAATGCGCGCTCATGGAAGACTGCGCAATGCGCGCTCATGCAATGCGCAATGCGCAATGCGCAATGCGCAATGCGCAATGCGCAATGCGCAATGCGCAATGCGCAATGCGCAATGCGCAATGCGCAATGCGCAATGCGCAATGCGCAATGCGCAATGCGCAATGCGCAATGCAATGCGCAATGCAATGCGCAATGCAATGCGAAATGCAA	361 GGGGAATGTGTCAACCTCAGCCACCGGTACACCGGCTCCTGCTGGTGAAGGAGCACTCA 420 421 AACCCCATGCAGGTCCAGCAGCAGCTTCTGGACAGGCCGGGGACACGCGAGGACCGTG 480 421 AACCCATGCAGGTCCAGCAGCTTCTCGAACAAAGGCCGGGGAAACGCCAGGACCGTG 480	GGACACCAGGCTAGCCCCATCAAGATAGAGACCCTCTTTGAGCCAGACGAGGAGCGCCC 54	GAGCCACCGCGCACCGTGGTCATGCAAGGCGCGGCAGGGATAGGCAAGTCCATGCTGGCA 60	601 CACAAGGTGATGCTGGACTGGGCGGAAGCTCTTCCAAGGCAGTTTGATTATCTC 660		721 ATCTTCAGCTGGCCTGAGCCCAGCGCCTCTCCAGGAGCTCATCCGGAG 780 781 CGCCTCTTTTCATCATCGACGCTTCGATGAGCTCCAGGATCCTCAG 840 781 CGCCTCTTTTCATCATCGACGCTTCGATGAGCTCAAGCCTTCTTTCCACGATCCTCAG 840 781 CGCCTCTTTTCATCATCACGGCTTCGATGAGCTCAAGCCTTCTTTCCACGATCCTCAG 840	841 GGACCCTGGTGCCTCTGGGAGGAGAAAACGGCCCACGGAGCTGCTTCTTAACAGCTTA 900	901 ATTCGGAAGCTGCTCCTGAGCTATCTTTGCTCATCACCACACGCGCCCACGGCTTTG 960

6 8 6 8 6 8 6 8 6 8 6 8 6 8 6 8 6

RESULT 2 AX459869 LOCUS LOCUS DEFINITION Sequence 12 from Patent W00240668. ACCESSION AX459869 VERSION AX459869 VERSTON AX459869 GI:21725643 VERYORDS Homo sapiens (human) ORGANISM Homo sapiens (human) Butaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.	REFERENCE 1 AUTHORS Techopp, J. and Martinon, F. AUTHORS Techopp, J. and dna sequences underlying these proteins used for TITLE treating inflammations JOURNAL Patent: WO 0240668-A 12 23-MAY-2002; Apotech Research and Development Ltd. (CH) FEATURES Location/Qualifiers source 13300	/organism="Homo sapiens" /mol type="unassigned DNA" /db_xref="taxon:9606" /note="NALP3/PY5.dna"	### Decal Similarity 100.0%; Pred. No. 0; Eds. Decal Similarity 100.0%; Pred. No. 0; Eds. Decal Similarity 100.0%; Pred. No. 0; Endels 0; Gaps Matches 3057; Conservative 0; Mismatches 0; Indels 0; Gaps 1. AngCIACGAACGCAAGGAACGCCTCTGTCGCCTGTCCACCTACTTGAAGAACTC	Db	121 GGCAAGATCCCCTGGGGAAGCATGGAAGGCCGGTCCCCTGGAAATGGCCCAGCTGCTC	Qy 181 ATCACCACTTCGGGCCAGAGGAGGCCTGGAGGTTGGCTCTCAGCACCTTTGAGCGGATA 240 Db 181 ATCACCCACTTCGGGCCAGAGGAGGCCTGGAGGTTGGCTCTCAGCACCTTTGAGCGGATA 240	241 AACAGGAAGCTGTGGGAGAGAGACACAGAGAGCCTGCTGAGGGATCCCCAGGAA	Qy 301 ACCTACAGGGACTATGTCGGGAAATTCCGGCTCATGGAAGACCGCAATGCGCGCCTA 360 	Qy 361 GGGGAATGTGTCAACCTCAGCCACCGGTACACCCGGCTCCTGGTGAAGGAGCACTCA 420 Db 361 GGGGAATGTGTCAACCTCAGCCACTCAACCCGGTACTCCTGCTGAAGGAGCACTCA 420	421 AACCCCATGCAGGTCCAGCAGCTTCTGGACACAGGCCGGGGACACGCGTG	481	541	601 CACAAGGTGATGCTGGACTGGGCGAAGGTCTTCCAAGGCAGATTTGATTATCTC
Oy 2041 GCGGCCCTGTGCACCAATCCAAACCTGATAGAGCTGTCTCTGTACCGAAATGCCCTGGGC 2100	Qy 2221 ATAGCCAATAAGAATTTGACAAGGATCTCAGTGGCAACGGCGTTGGATTCCCAGGC 2280 Db 2221 ATAGCCAATAAGAATTTGACAAGGATGGATCTCAGTGGCATGGCTTGGATTCCCAGGC 2280 Qy 2281 ATGATGCTGCTTTGCGAGGGCTGCGGGATCCCCAGTGCAGGCTGCAGATGATTCAGTTG 2340 Db 2281 ATGATGCTGCTTTGCGAGGCCTGCGGCATCCCCAGTGCAGGCTGCAGATGATTCAGTTG 2340	2341 2341 2401	2401 C 2461 C 2461 C	2521 CGCCTCACTGCTGCCTGTGACGAGCTGGCCTCAACTCTCAGTGTC	2581 AGAGACCTGGACCTGAATGAGCTGGGGGACCTCGGGGTGCTGCTGTGTGAG 2581 AGAGAGCTGGACCTGAATGAGCTGGGGGACCTCGGGGTGCTGCTGTGTGAG 2581 AGAGAGCTGGACCTGAATGAGCTGGGGACCTCGGGGTGCTGCTGTGTGAG	2641 GGCCTCAGGCATCCCACGTGCAAGCTCCAGACCCTGGGGTTGGGCATCTGCCGGC 2641 GGCCTCAGGCATCCCACGTGCAAGCTCCAGACCCTGCGGTTGGGCATCTGCCGGC	2701 TCTGCCGCTGTGAGGTCTTTCTGTGTGCTCCAGGCCAACCAA	2761 GACTTGAGTTTCAACGACCTGGGGCCTGTGGTTGGTTGCTGCCTGAGGGCTGCAA [2821	2881	2941	OY 3001 TGCAAACTCCGAGTCCTGGTTATTTGGGATGGACCTGAATAAAATGACCCAGTAGG 3060 10	OY 3061 TTGGCAGCGTTCGAGTAACAAAACCTTATTTGGACATTGGCTGCTGA 3108

1741 CAGGGCTCCTTGGAGTTCTTCAGCTGCTTGTACGAGTTCCAGGAGGAGGAGTTTATCCAG 1741 CAGGGCTCCTTGGAGTTTCTCAGCTGCTTGTACGAGATCCAGGAGGAGGAGGTTTATCCAG 1741 CAGGGCTCCTTGGAGTTCTTCAGCTGTTGTACGAGATCCAGGAGGAGGAGTTTATCCAG 1801 CAGGCCTGAGCCACTTCCAGGTGATCGTGGTCAGCAAATTGCCTCCAAGATGAGCAC 1801 CAGGCCCTGAGCCACTTCCAGGTGATCGTGGAACATTGCCTCCAGATGAGACAC 1861 ATGGTCTCCTCGATCTCTGAAGCGTGCTGCAGGAGCACTTGTATGGC 1861 ATGGTCTCCTCGATCTCTGAAGCGCTGCAGGAGGCTGCTGTATGGC 1861 ATGGTCTCCTCGTTCTTGAAGCGCTGCAGGAGGCCCCAGGTGCTGCTTGTATGGC 1861 ATGGTCTCCTCGTTCTTGAAGCGCTGCAGGAGGCCCCAGGTGCTGCTTGTATGGC 1861 ATGGTCTCCTCCTCTTTATAGGC 1661 ATGGTCTCCTCTCTTTATAGGC 1661 ATGGTCTCCTCTCTTTATAGGC 1661 ATGGTCTCCTCTTTTATAGGC 1661 ATGGTCTCCTCTTTATAGGC 1661 ATGGTCTCCTCTTTATAGGC 1661 ATGGTCTCTCTTTATAGGC 1661 ATGGTCTCTCTTTTATAGGC 1661 ATGGTCTCTCTTTATAGGC 1661 ATGGTCTCTCTTTTATAGGC 1661 ATGGTCTCTCTTTTATAGGC 1661 ATGGTCTCTCTTTTTATAGGC 1661 ATGGTCTCTCTTTTTATAGGC 1661 ATGGTCTCTCTTTTTTATAGGC 1661 ATGGTCTCTCTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	CCTACAGCGCGACGGGGAAGACCGCGGGGGGGTGCTCCGCGGGGGGGG	2041 GCGGCCCTGTGCACCAATCCAAACCTGATAAAGCTGTCTGT	2161 CTGAGGCTGAAGAGTGCCGCATCTCCAGCTCGGAGGACCTCTCTGCGAGGACCTCTGCGAGGACCTCTCTGCAGGACTCTC	Db 2281 ATGATGCTGCTTTGCGAGGGCTGCGGGATCCCCAGTGCAGGTTGCAGATGATTCAGTTG 2340 Qy 2341 AGGAAGTGTCAGCTGGAGTCCGGGGCTTGTCAGAGATGGCTTCTGTGCTCGGCACCAAC 2400 Db 2341 AGGAAGTGTCAGCTGGAGTCCGGGGCTTGTCAGAGAGTCTGTGCTCGGCACCAAC 2400 Qy 2401 CCACATCTGGTTGAGTGGACCTGACAGGAAGAGTCTGTGGTGCTGAGGGACCAAC 2400 Db 2401 CCACATCTGGTTGATTGGACCTGACAGGAAATGCACTGGAGGATTTGGGCCTGAGGTTA 2460 2401 CCACATCTGGTTGATTGGACCTGACAGGAAATGCACTGGAGGATTTGGGCCTGAGGTTA 2460	2461 CTATGCCAGGACTGAGGCACCCAGTCTGCAGACTTTGTGGCTGAAGATCTGC 2 2461 CTATGCCAGGGACTGAGGCACCCAGTCTGCAGACTTTGTGGCTGAAGATCTGC 2 2521 CGCCTCACTGCTGCTGCTGAGGCTGGCTGACTCTCAGTGTGACTGAACATCTGC 2 2521 CGCCTCACTGCTGCTGCTGAAGACTGGCCTCAACTCTCAGTGTGAACACAGAGCTG 2 2521 CGCCTCACTGCTGCTGAACACAGACTGGCCTCAACTCTCAGTGTGAACCAGAGCTG 2 2521 CGCCTCACTGCTGCTGTGAACGAGCTGGCCTCAGTGTGAACCAGAGCCTG 2		Oy 2701 TCTGCCGCCTGTGAGGGTCTTTCTGTGGTGCTCCAGGCCAACCTCCGGGAGCTG 2760 2701 TCTGCCGCCTGTGAGGGTCTTTCTGTGGTGCTCCAGGCCAACCTCCGGGAGCTG 2760 2701 GACTTGAGTTTCAACGACTGGAAACTGGGGCCTGTGGTGTGCTGCGGCTGCAGGCTGCAACCTGCAGGCTGCAACCTGCAGGCTGCAACCTGCAGGCTGCAACCTGCAACCTGCAGGCTGCAACCTGCAACCTGCAACCTGCAACCTGCAACACTGCAACACTGCAACACTGCAACACACTGCAACAGCCTGAAGGCTTGCAACAGCCTAACACACAC
661 TTCTACATCACTGCAGGGAGATGAACCAGGAATGCAGCATGCAAGACCTC 720 [41 GACCCTGGTGCCTCGGGAGAAACGGCCCACGGAGCTGCTTCTTAACA GGACCCTGGTGCTCTTAACA GGACCCTGGTGCTTCTTAACA GGACCCTGGTGCTTCTTAACA GGACCCTGGTGCTTCTTAACA GACCCTGGTGCTTCTTTACACA GACCCTGGAGGTGCTTCTTTGCTCACGAGGCTGCTTCTTAACA GACCTGTGATCTTTTGCTCATCACACACGCCCACGGCCCACGGCCCACACGGCCCACACGGCCCACACGGCCCACACGGCCCACACGGCCCACACGGCCCACACGGCCCACACGGCCCACACGGCCCACACGGCCCACACGGCCCACACACACACACACACACACACACACACACACACACA		### ##################################		degeterlegaatergaaaateeratteergeeeeeeeeeeeeeeeee	AGGINCTACAGCTICATCACTIGAGTITCCAGGAATICTITGCAGCIAIGINCIANIC	TTCCTGGCACTCACCAGCGCTTCCTGTTTGGA CTGGAGAAGACTCTCTGCTGGAAGGTCTCGCCGC CTGGAGAAGACTCTCTGCTGGAAGGTCTCGCCCG ATCCAAAGCAAAG

ä

ઠ

```
misc_feature
                                                     misc feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                941
                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1001
                                                                                                                                                                                                                                                                                                                                                                            281
                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                          요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /protein_indarul-1.
/protein_indarul-1.
/protein_indarul-1.
/db_xref=[01:21711821."
/db_xref=[01:21718."
/db_xref=[01:21
                                                                                                                                                                                                                  3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAHTLLVQLRPERTYLLDAYSEHLAAALCTNPNLIELSIYRNALGSRGVKLLCQGLRH
VOKTKONELKRCRSISSSACEDLSAALTANKOLITRMDLSGGNGVGPPGMALLCCEGIRHP
OCKLQMI OLRKCQLSEGACOENASVLGTNPHLVELDITGNALEDLGLRLCQGLRPH
OCKLTMIKICRLTAAACDELASTLSVNQSLRELDLSINBLGDLGVLLLCGGLRHPT
CRLTIMLKICRLGSAACEGISVVLQANHULRELDLSINBLGDMCIMLLAEGLGPTPC
LQKLMLDSCGLTAKACENLYFTLGINQTLTDLSTYTTNNALGDTGVRLLCKRLSHPGCKL
RVLMLFGMDLNKWTHSRLAALRYTKPYLDIGC"
                                                                                                                                                               AACAACGCCCTAGGGGACACAGGTGTCCGACTGCTTTGCAAGCGGCTGAGCCATCCTGGC 3000
                                                                                                                                                                                                                                                                                                                                                                                                                   AY116204
3731 bp mRNA linear PRI 21-MAY-2003
HOMO sapiens monarch-1 mRNA, complete cds; alternatively spliced.
AY116204
AY116204.1 GI:21711820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (Dases I to 3731)

1 (Dases I to 7371)

Williams, K.L., Taxman, D.J., Linhoff, M.W., Reed, W. and Ting, J.P.Y.

Monarch-1: A Pyrin/Nucleotide-Binding Domain/Leucine-Rich Repeat
Protein That Controls Classical and Nonclassical MHC Class I Genes

12759408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2 (bases 1 to 3731)
Williams, K.L., Linhoff, M.W., Harton, J.A. and Ting, J.P.Y.
Williams, K.L., Linhoff, M.W., Harton, J.A. and Ting, J.P.Y.
Direct Submission
Submitted (29-MAY-2002) Lineberger Cancer Center, UNC, Mason Farm Road, Chapel Hill, NC 27599, USA
Location/Qualifiers
                                                                                                                                                                                                                                                      /map="19q13.4"
/cell_line="U937"
221. "3409
/note="alternatively spliced"
/codon_start=1
/product="monarch-1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1. .3731
/organism="Homo sapiens"
/wol_type="mRNA"
/db_xref="taxon:9606"
/chromosome="19"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       869. .892
/note="Region: P-loop'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ношо
                                                                                                                                                             2941
                                                                                                                    2881
                                                                                                                                                                                                             2941
                                                                                                                                                                                                                                                           3001
                          2821
                                                                      2881
                                                                                                                                                                                                                                                                                                      3001
                                                                                                                                                                                                                                                                                                                                                                     RESULT 3
AY116204
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PUBMED
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
                          셤
                                                                                                                    엄
                                                                                                                                                             ઠે
                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                    셤
```

misc feature

```
1060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            819
                                                                                                                                                                                                                                         280
                                                                                                                                                                                                                                                                                                                    340
                                                                                                                                                                                                                                                                                                                                                                                                  400
                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               759
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           879
                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               289 ------GATCCCCAGGAAACCTACAGGGACTATGTCCGCAGGAAATTCCGGCTCATG
                                                                                                                                                                                                                       ATCACCCACTTCGGGCCAGAGGCCTGGAGGTTGGCTCTCAGCACCTTTGAGCGGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AACAGGAAGGACTGTGGGAGAGAAGAACAGAGAGACTGGTGAGG-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTGCTGGTGAAGGAGCACTCAAACCCCATGCAGGTCCAGCAGCAGCTTCTGGACACAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAGCCAGACGAGGGCCCCGGAGCCACCGCGCACGTGGTCATGCAAGGCGCGGCAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAGCCAGACGAGGGGCCCCCGAGCCACCGCGCCCCTGGTCATGCAAGGCGCGGCAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1061 GAGCTCATCCGAGTTCCCGAGCGCCTCCTTTTCATCATCGACGGCTTCGATGAGCTCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1121 CCTTCTTTCCAGGATCCTCAGGGACCCTGGTGCCTCTGCTGGGGGAGAAACGGCCCACG
                                                                                                                                                                                                  ATGCTACGAACCGCAGGCAGGGCCTCTGTCGCCTGTCCACCTACTTGGAAGAACTC
                                                                                                                                                                                                                                                                                 GAGGCTGTGGAACTGAAGTTCAAGTTATACCTGGGGACCGCCACAGAGCTGGGAGAA
                                                                                                                                                                                                                                                                                                     GAGGCTGTGGAACTGAAGATCAAGTTATACCTGGGGACCGCGACAGAGCTGGGAAA
                                                                                                                                                                                                                                                                                                                                                             GGCAAGATCCCCTGGGGAAGCATGGAGAAGGCCGGTCCCCTGGAAATGGCCCAGCTGCTC
                                                                                                                                                                                                                                                                                                                                                                                    GECAAGATCCCCTGGGGGAAGCATGGAGAAGGCCGGTCCCCTGGAAATGGCCCCAGCTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Arcacccacrircegeccagaegaegecregaegriregercregeacacrirreagegara
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              461 AACAGGAAGGACCTGTGGGAGAGAGAGAGAGAGAGGACCTGGTGAGGGATACCCCACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            521 GGTGCCCGTCCTCACTTGGGAACCAGTCAACATGCCTTCTGGAAGTCTCTTGTCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAAGACCGCAATGCGCGCCTAGGGGAATGTGTCAACCTCAGCCACCGGTACACCCGGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTGCTGGTGAAGGAGCACTCAAACCCCATGCAGGTCCAGCAGCAGCTTCTGGACACAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CGGGGACACGCGAGGACCGTGGGACACCAGGCTAGCCCCATCAAGATAGAGACCCTCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATAGGGAAGTCCATGCTGGCACACAAGTGATGCTGGACTGGGCGGACGGGAAGCTCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAAGGCAGATTTGATTATCTCTACATCAACTGCAGGGAGATGAACCAGGTGCCACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAATGCAGCATGCAAGACCTCATCTTCAGCTGCTGAGCCTGAGCCCCAGCGCGCCTCTCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAATGCAGCATGCAAGACCTCATCTTCAGCTGCTGGCCTGAGCCCAGCGCGCCTCTCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAGCTCATCCGAGTTCCCGAGCGCCTCCTTTTCATCATCGACGGCTTCGATGAGCTCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCTTCTTTCCACGATCCTCAGGGACCCTGGTGCCTCTGCTGGGAGGAGAAACGGCCCACG
                                                                                                                                                               Gaps
                                                                                                                                                             81;
                                                                                                                   Length 3731;
                                                                                                                                                           0; Indels
2069. .3406
/note="Region: leucine rich repeat"
221. .289
/note="Region: pyrin domain"
                                                                                                                       6
                                                                                                                       В
                                                                                                                     Score 3017; D
Pred. No. 0;
0; Mismatches
                                                                                                                       97.1%;
97.5%;
                                                                                                                     Query Match
Best Local Similarity 97.5
Matches 3108; Conservative
```

유

g 8

```
PSSICHMOSTCLLENGENTPRKOPOETYRDYRRKFRIAMEDRNARLGECVNLSHRYTRL
LLVKEHSNPWQVQQLLDTGRGHARTVGHQASPIKIBTLFEPDBERPEPPRTVVWQGA
APLGELIRLAHKWLDWADGKLFQRRPYLFYINCRENNQSAFECSMQDLIFSCWPEPS
APLGELIRLAHKWLDWADGKLFSFHDPGPWCLCWFERNYSFTELLLINSLIFSCWPEPS
ELSLLITTRPTALEKLHRLEHPRHYBILGFSEAERREYFYKKFHNAQAGQVFNYYR
DNEPLFTMCFVPLVCWVVCTCLQQQLBGGGLLRQTSRTTTAVYMLYLLSLMQPKPGAP
YYSETHLSFQERFAMYYILDGGGGAGPDQDXHGLGLGBASFLNMIFTQKOINCER
YYSETHLSFQERFAMYYILDGGGGAGPDQDXHTLTTRYAYMLYGLMGDRGBPRELFGL
INNEETRSHLEKSLCWKVSPHIKMDLLQWIQSKAQSDGSTLQQCSLEEFFSCLYEIQEEE
FIQQALSHFQVIVVSNIASKWEHWYSSFCLKRCRSAQVLHIYGATVSADGBRAACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAHTILVOLPERTVILIDAYSEHIAAALCTNPNIJELSIYRNALGSRGVKILCOGLRHP
VCKLONLRIKRCRISSSACEDISAALIANKULTRNDLSGNGVOFPGMULLCEGIRHPO
CRLOMIQLRKCQLSSGACQERASVLGTNPHVVBLDITGNALBDLGTRLLCOGLRHPV
RLRTIWILKTRLTAAACDELASTLSVNQSLREIDLSINBLGDLGULLLCEGLRHPTCK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LQTLRLGICRLGSBACEGLSVVLQANHNLRELDLSFNDLGDWGLWLLAEGLQHPACRL
QKLWLDSCGLTAKACENLYFTLGINQTLTDLYLTNNALGDTGVRLLCKRLSHPGCKLR
VLWLFGWDLNKWTHSRLAALRVTKPYLDIGC"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /translation="MLRTAGRDGLCRLSTYLEELEAVELKKFKLYLGTATELGEGKIP
WGSMEKAGPLEMAQLLITHFGPEEAWRLALSTFERINRKDLWERGQREDLVRDTPPGG
       This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 21955153. Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                120 ATGCTACGAACCGCAGGCAGGCCTCTCTCTCCCCTGTCCACCTACTTGGAAGAACTC 179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       289 ------GATCCCCAGGAAACCTACAGGACTATGTCCGCAGGAAATTCCGGCTCATG 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     420 GGTGGCCCGTCCTCACTTGGGAACCAGTCAACATGCCTTCTGGAAGTCTCTCTTGTCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 ATGCTACGAACCGCAGGCACGGCCTCTGTCGCCTGTCCACCTACTTGGAAGAACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAGGCTGTGGAACTGAAGAAGTTCAAGTTATACCTGGGGACCGCGACAGAGCTGGGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            180 GAGGCTGTGGGAACTGAAGATCAAGTTATACCTGGGGACCGCGACAGAGCTGGGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGCAAGATCCCCTGGGGAAGCATGGAGAAAGGCCGGTCCCCTGGAAATGGCCCAGCTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             240 GECAAGATCCCCTGGGGAAGCATGGAGAAGGCCGGTCCCTGGAAATGGCCCAGCTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181 ATCACCCACTTCGGGCCAGAGGCCTGGAGGTTGGCTCTCAGCACCTTTGAGCGGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241 AACAGGAAGGACCTGTGGGAGAGAGAGAGAGAGAGAGACCTGGTGAGG-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /product="PYRIN-containing APAF1-like protein 7" 
/protein_id="AAH28069.1" 
/db_xref="G1:20380400" 
/db_xref="G1:20380400" 
/db_xref="LocusID:91662"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        84;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 9; Length 3507;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                            /mol_type="mRNA"
/db xref="taxon:9606"
/clone="mGc:40117 IMAGE:5212737"
/tissue_type="Blood, adult leukocytes"
/clone_lib="NIH MGC_118"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /note="synonyms: RNO2, PYPAF7"
/db_xref="LocusID:91662"
                                                                                                                                                                                                                                                                                                                                                                                            /note="Vector: pCMV-SPORT6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       96.6%; Score 3001; I 97.4%; Pred. No. 0; iive 0; Mismatches
                                                                                                                                               /organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              120. .3305
/gene="NALP12"
                                                                                                                                                                                                                                                                                                                                                                                                                                                         gene="NALP12"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                            . .3507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Simi
Matches 3105;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CDS
                                                                           PEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Strausberg, R.L., Feingold, E.A., Grouse, L.H., Derge, J.G.,
Klausher, R.D., Collins, F.S., Wagner, L., Shenmen, C.M., Schuler, G.D.,
Klausher, R.D., Collins, F.S., Wagner, L., Shenmen, C.M., Schuler, G.D.,
Altschul, S.F., Zeeberg, B., Buetow, K.H., Schefer, C.F., Bhat, N.K.,
Hopkins, R.F., Jordan, H., Moore, T., Max, S.I., Wang, J., Haieh, F.,
Diatchenko, L., Marusina, K., Farmer, A.A., Rubin, G.M., Hong, L.,
Stapleton, M., Soares, M.B., Bonaldo, M.F., Casavant, T.L.,
Stapleton, M., Soares, M.B., Bonaldo, M.F., Casavant, T.L.,
Carninci, P., Prange, C., Raha, S.S., Loquellano, N.A., Peters, G.J.,
Abramson, R.D., Mullahy, S.J., Bosak, S.A., McEwan, P.J.,
McKernan, K.J., Malek, J.A., Gunaratne, P.H., Richards, S.,
Worley, K.C., Hale, S., Garcia, A.M., Gay, L.J., Hulyk, S.M.,
Villalon, D.K., Muzny, D.M., Sodergren, E.J., Lu, X., Glubs, R.A.,
Ranchar, J., Helton, E., Ketteman, M., Madan, A., Rodrigues, S.,
Sanchez, A., Whiting, M., Madan, A., Rodrigues, S.,
Boutfeard, G.G., Blakesley, R.W., Touchman, J.W., Green, E.D.,
Butterfield, Y.S., Krzywinski, M.I., Skalska, U., Smailus, D.E.,
Schnerch, A., Schein, J.E., Jones, S.J. and Marra, M.A.
Butterfield, Y.S., Krzywinski, M.I., Skalska, U., Smailus, D.E.,
Butterfield, Y.S., Krzywinski, M.I., Skalska, U., Smailus, D.E.,
Butterfield, Y.S., Krzywinski, M.I., Skalska, U., Smailus, D.E.,
Butterfield, M. S., Krzywinski, M.I., Skalska, U., Smailus, D.E.,
Butterfield, M. Schein, J.E., Jones, S.J. and Marra, M.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: The I.M.A.G.B. Consortium (LLNL)
DNA Sequencing by: National Institutes of Health Intramural
Sequencing Center (NISC),
Web Site: http://www.nisc.nih.gov/
Contact: nisc.mgc@nhgri.nih.gov/
Akhter,N., Ayele,K., Beckstrom-Sternberg,S.M., Benjamin,B.,
Blakesley,R.W., Bouffard,G.G., Breen,K., Brinkley,C., Brooks,S.,
Dietrich,N.L., Granite,S., Guan,X., Gupta,J., Haghighi,P.,
Hansen,N., Ho,S.-L., Karlins,E., Kwong,P., Laric,P., Legaspi,R.,
Maduro,Q.L., Masiallo,C., Maskeri,B., Mastrian,S.D.,McCloskey,J.C.,
McDowell,J., Pearson,R., Stantripop,S., Thomas,P.J., Touchman,J.W.,
Tsurgeon,C., Vogt,J.L., Walker,M.A., Wetherby,K.D., Wiggins,L.,
Young,A., Zhang,L.-H. and Green,E.D.
                                                                                                                                                                                                                                                                                                                                                 BCO28069 3507 bp mRNA linear PRI 29-JUN-2004 Homo sapiens NACHT, leucine rich repeat and PYD containing 12, mRNA (cDNA clone MGC:40117 IMAGE:5212737), complete cds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov
Series: IRAK Plate: 62 Row: g Column: 10
3341 AATAAAATGACCCACAGTAGGTTGGCAGCGCTTCGAGTAACAAAACCTTATTTGGACATT 3400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 3507)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Direct Submission
Submitted (08-APR-2002) National Institutes of Health, Mammalian
Gene Collection (MGC), Cancer Genomics Office, National Cancer
Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Proc. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903 (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NIH-MGC Project URL: http://mgc.nci.nih.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Contact: MGC help desk
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Life Technologies, Inc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BC028069.1 GI:20380399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (bases 1 to 3507)
                                                                                                           GCCTGCTGA 3108
                                                                                                                                               3401 GGCTGCTGA 3409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              trausberg, R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                             BC028069
                                                                                                           3100
                                                                                                                                                                                                                                                                                                                                                                                     DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCESSION
                                                                                                                                                                                                                                                                                    RESULT 4
BC028069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REMARK
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE
```

'n

359

180 299

```
PSSIGNOGYTCLEVSLUTTREVERANDER 1 FEATURED LINGUISTREAD FROM THE OF PRESENCINGS TO LINGUISTREAD PRODUCE THE OF SEATURED FROM THE OF SEATU
                                                                                                                                       177. .3362
/note="PYPAR7; PYRIN-containing nucleotide-binding site/.
leucine-rich repeat family member"
/codon start=1
/product="PYRIN-containing APAP1-like protein 7"
/protein id="AAM1827.1"
/db xref="G1:21314907"
/translation="WRTAGRDGLCRLSTYLEELEAVELKKFKLYLGTATELGEGKIP"
WGSMEKAGPLEMAQLLITHFGPEEAWRLALSTFERINRKDLWERGOREDLVRDTPFGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAGGCTGTGGAACTGAAGAAGTTCAAGTTATACCTGGGGACCGCGACAGAGCTGGGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGCAAGATCCCCTGGGGAAGCATGGAGGAAGGCCGGTCCCCTGGAAATGGCCCAGGTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 ATGCTACGAACCGCAGGACGGCCTCTGTCGCCTGTCCACCTACTTGGAAGAACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATGCTACGAACCGCAGGCACGGCCTCTGTCGCCTGTCCACCTACTTGGAAGAACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAGGCTGTGGAACTGAAGATCAAGTTATACCTGGGGACCGCGACAGAGCTGGGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGCAAGATCCCCTGGGGAAGCATGGAGAAGGCCGGTCCCCTGGAAATGGCCCAGCTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATCACCCACTTCGGGCCAGAGGAGGCCTGGAGGTTGGCTCTCAGCACCTTTGAGCGGGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATCACCCACTTCGGGCCAGAGGAGGCCTGGGAGGTTGGCTCTCAGCACCTTTGAGCGGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241 AACAGGAAGGACCTGTGGGAGAGAGACAGAGAGAGAGGACCTGGTGAGG------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGTGGCCCGTCCTCACTTGGGAACCAGTCAACATGCCTTCTGGAAGTCTCTCTGTCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -----GATCCCCAGGAAACCTACAGGGACTATGTCCGCAGGAAATTCCGGCTCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCAAGAAAAGATCCCCAGGAAACCTACAGGGACTATGTCCGCAGGAAATTCCGGCTCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAAGACCGCAATGCGCCCTAGGGGAATGTGTCAACCTCAGCCACCGGTACACCCGGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAAGACCGCAATGCGCGCCCTAGGGGAATGTGTCAACCTCAGCCACCGGTACACCCGGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        84;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 3827;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 2997.8; Pred. No. 0; Mismatches
organism="Homo sapiens"
                        /mol_type="mRNA"
/db_xref="taxon:9606"
/chromosome="19"
                                                                                                               /map="19q13.4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 96.5%;
Best Local Similarity 97.3%;
Matches 3103; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  657
                                                                                                                                          CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ⋧
                                                                                                                                          2619
                                                                                                                                                                                                                                                          2679
                                                                                                                                                                                                                                                                                                                                                                                                                                   2936
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2979
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3039
                                                                                                                                                                                              2816
                                                                                                                                                                                                                                                                                                                 2876
                                                                                                                                                                                                                                                                                                                                                                          2739
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2799
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2859
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AY095146 3827 bp mRNA linear PRI 12-AUG-2002
Homo sapiens PYRIN-containing APAF1-like protein 7 mRNA, complete
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 3827)
Wang, L., Manji, G.A., Grenier, J.M., Al-Garawi, A., Merriam, S., Lora, J.M., Geddes, B.J., Briskin, M., DiStefano, P.S. and Bertin, J. PYPAF7, a Novel PXRIN-containing Apafi-like Protein That Regulates Activation of NF-kappa B and Caspase-1-dependent Cytokine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Direct Submission
Submitted (10-APR-2002) Inflammation, Millennium Pharmaceuticals
Inc., 45 Sidney Street, Cambridge, MA 02139, USA
Location/Qualifiers
1. .3827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTGACCGACCTTTACCTGACCAACGCCCTAGGGGACACAGGTGTCCGACTGCTTTGC
                                                                  ACTITICIONES ACTITI
                                                                                                                                                                   CTCAGTGTGAACCAGAGCCTGAGAGCTGGACCTGAGCCTGAATGAGCTGGGGGGACCTC
                                                                                                                                                                                                                                                                                     GGGGTGCTGCTGTGTGTGAGGCCTCAGGCATCCCACGTGCAAGCTCCAGAGCCCTGCGG
                                                                                                                                                                                                                                                                                                                                                                                                     TTGGGCATCTGCCGGCTGGGCTCTGCCGCCTGTGAGGGTCTTTCTGTGGTGCTCCAGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AACCACAAACCTCCGGGAGCTGGACTTGAGTTTCAACGACCTGGGAGACTGGGGCCTGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTGCTGGCTGAGGGGCTGCAACATCCCGCCTGCAGAACTCCAGAAACTGTGGCTGGGTAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGTGGCCTCACAGCCAAGGCTTGTGAAATCTTTACTTCACCCTGGGGATCAACCAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGTGGCCTCACAGCCAAGGCTTGTGAGAATCTTTACTTCACCCTGGGGATCAACCAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAGCGCCTGAGCCATCCTGGCTGCAAACTCCGAGTCCTCTGGTTATTTGGGATGGACCTG
                        ACTITICIGGCTGAAGATCTGCCGCCTCACTGCTGCTCTGTGACGAGCTGGCCTCAACT
                                                                                                                                    CTCAGTGTGAACCAGAGCCTGAGAGCTGGACCTGAATGAGCTGGGGCCTC
                                                                                                                                                                                                                                                       GGGGTGCTGCTGTGTGTGAGGGCCTCAGGCATCCCACGTGCAAGCTCCAGACCCTGCGG
                                                                                                                                                                                                                                                                                                                                                                          TTGGGCATCTGCCGGCTCTGCCGCCTGTGAGGGTCTTTCTGTGGTGCTCCAGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AACCACAACCTCCGGGAGCTGGACTTTGAGTTTCAACGACCTGGGAGACTGGGGCCTGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTGCTGGCTGAGGGCTGCAACATCCCGCCTGCAGACTCCCAGAAACTGTGGCTGGATAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTGACCGACCTTTACCTGACCAACAACGCCCTAGGGGACACACGGTGTCCGACTGCTTTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAGCGGCTGAGCCATCCTGGCTGCAAACTCCGAGTCCTCTGGTTATTTGGGATGGACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               J. Biol. Čhem. 277 (33), 29874-29880 (2002)
12019269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AY095146.1 GI:21314906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (bases 1 to 3827)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCCTGCTGA 3108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Processing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AY095146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bertin, J
                                                                                                                                                                                                                                                                                                           2817
                        2500
                                                                                                                                                                                           2757
                                                                                                                                                                                                                                                    2620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3297
                                                                              2697
                                                                                                                                       2560
                                                                                                                                                                                                                                                                                                                                                                                                                             2877
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3057
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3100
                                                                                                                                                                                                                                                                                                                                                                       2680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AY095146
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JOURNAL
PUBMED
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE
                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             <del>Q</del>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                     g
                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                        ઠે
                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
```

ò

유 ઠ 셤 ઠે 셤 à ď ò

```
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         쉽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ሯ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                         2979
                                                                                             2799
                                                                                                                             3053
                                                                                                                                                             2859
                                                                                                                                                                                                                         2919
                                                                                                                                                                                                                                                                                                                       3233
                                                                                                                                                                                                                                                                                                                                                       3039
                                                                                                                                                                                                                                                                                                                                                                                                                      3099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /translation="MLRTAGRDGLCRLSTYLEELBAVELKKFKLYLGTATELGEGKIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRI 20-FEB-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                      3353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2 (bases 1 to 3827)
Martinon, F., Hofmann, K. and Tschopp, J.
Martinon, F., Hofmann, K. and Tschopp, J.
Martinon, F., Hofmann, K. and Tschopp, J.
Submitted (15-SEP-2002) Institute of Biochemistry, University of Lausanne, ch. des Boveresses 155, Epalinges, VD 1066, Switzerland Location/Qualifiers
1. 3827
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
1. 3827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Butheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                       3294 AAIAAAAIGACCCACAGAGTAGGTIGGAGTAACAAAACCTTATTTGGACATT
GGGGTGCTGCTGTGTGTGAGGCCCTCAGGCATCCCAAGGTGCAAGCTCCAGACCCTGCGG
                                                TTGGGCATCTGCCGGCTGGCGCTCTGCCCTGTGAGGGTCTTTCTGTGGTGCTCCCAGGCC
                                                                                                              AACCACAAACCTCCGGGAGCTGGACTTGAGTTTCAACGACCTGGGAGACTGGGGCCCTGTGG
                                                                                                                                                                               TIGCTGGCTGAGGGCTGCAACATCCCGCCTGCAGACTCCAGAAACTGTGGCTGGATAGC
                                                                                                                                                                                                                                                                                                                     3174 TTGACCGACCTTTACCTGACCAACACGCCCTAGGGGACACAGGTGTCCGACTGCTTTGC
                                                                                                                                                                                                                                                                                                                                                                                     3234 AAGCGGCTGAGCCATCCTGGCTGCAAACTCCGAGTCCTCTGGTTATTTGGGATGGACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                   AATAAAATGACCCACAGTAGGTTGGCAGCGCTTCGAGTAACAAACCTTATTTGGACATT
                                                                                             AACCACAACCTCCGGGAGCTGGACTTTGAGTTTTCAACGACCTGGGAGACTGGGGCCTGTGG
                                                                                                                                                             TTGCTGGCTGAGGGCTGCAACATCCCGCCTGCAGACTCCAGAAACTGTGGCTGGATAGC
                                                                                                                                                                                                                                                                                         TTGACCGACCTTTACCTGACCAACACGCCCTAGGGGACACAGGTGTCCGACTGCTTTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     note="member of the NALP protein family involved in inflammation; contains NACHT, LRR and PYD domains"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 (bases 1 to 3827)
Tschopp, J., Martinon, F. and Burns, K.
NALDES: a novel protein family involved in inflammation
Nat. Rev. Mol. Cell Biol. 4 (2), 95-104 (2003)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3827 bp mRNA lines
Homo sapiens NALP12 (NALP12) mRNA, complete cds.
AY154467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /protein_id="AA018163.1"
/db_xref="GI:28436378"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        codon_start=1
product="NALP12"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /gene="NALP12"
177. .3362
/gene="NALP12"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GI:28436377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGCTGCTGA 3108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGCTGCTGA 3362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AY154467.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              12563287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ношо
                                                             2934
                                                                                            2740
                                                                                                                           2994
                              2680
                                                                                                                                                           2800
                                                                                                                                                                                         3054
                                                                                                                                                                                                                         2860
                                                                                                                                                                                                                                                         3114
                                                                                                                                                                                                                                                                                       2920
                                                                                                                                                                                                                                                                                                                                                       2980
                                                                                                                                                                                                                                                                                                                                                                                                                    3040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
AUTHORS
TITLE
JOURNAL
MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 6
AY154467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURES
```

LOCUS

PSSIGNOSTCLLEYGLYTPRKDPQETYRDYVRRKFRLMEDRNARLGECVNLSHRYTRL
LILVKEHSNPMQVQQQLLDTGRGHARTVGHQASPIKIETLFEPDERBRPFTVVMQGA
AGIGKSMLAHKVMLDMADGKLFOGREDYLYTINCREMVQSATECSMQDLIFSCWPEPS
ACIGKSMLAHKVMLDMADGKLFOGREDYLYTINCREMVQSATECSMQDLIFSCWPEPS
ACIGELITTRPTALEKLHRLLEHPRHVEILGFSEAERKEYFYKYFHNAEQAGQVFNYVR
DNEBLFTWCPPPLVGWVVCTCLQQQLEGGGLLRQTSRYTTAVYMLYLLLSLMOPKEGAP
RLQPPPWGGLCSLAADGLWNQXTLFEBQDLKHGLDGEDVSAFLAMVIFQKDINCER
YYSFIHLGFQEFFPAMYY LIDEGEGGAGPDQDVTRLLTBYAFSRRENTITGKDINCER
YYSFIHLGFQEFFPAMYY LIDEGEGGAGPDQDVTRLLTBYAFSRRENTFGCINETGEE
FIQQALSHQVIVVSNIASKMEHNVGSFCLKRCRSAQVLLYGGGSLEFFSCLYBIQEE
FIQQALSHQVIVVSNIASKMEHNVGSFCLKRCRSAQVLLYGGGGDRARCSA
GAHTLLVQLPERRYLLLDAYSELLAMALCTNFNLIELSLYRNALGSRGYKLLCGGLRHPD
NCKLQNIRLKRCRISSSACEDLSAALIANKNITRMDLSGNGVGFFGMMLLCGGLRHPP CRLOMI QLRKCQLESGACQEMASVLGTNPHLVELDLTGNALEDLGLRLLCQGLRHPVC RLRTLMLKTCRLTAAACDELASTLSVNQSLRELDLSLNELGDLGVLLLCEGLRHPTCK LQTLRLGICRLGSAACEGLSVVLQANHNLRELDLSFNDLGDWGLWLLAEGLQHPACRL QKLWLDSCGLTAKAENLYFTLGINQTLTDLYLTNNALGDTGVRLLCKRLSHPGCKLR VLWLPGMDLNKYTHSRLAALRVTKPYLDIGC" WGSMEKAGPLEMAQLLITHFGPEEAWRLALSTFERINRKDLWERGOREDLVRDTPPGC

DB 9; Length 3827; 84; Indels 2, Score 2997.8; Pred. No. 0; 0; Mismatches Query Match 96.5%; Best Local Similarity 97.3%; Matches 3103; Conservative (

a

g

ò

요

ઠે

d

ò 셤

ò

~

Gaps

356 240 GGCAAGATCCCCTGGGGAAGCATGGAGAAGGCCGGTCCCCTGGAAATGGCCCCAGCTGCTC TGAGCGGATA ATCACCCACTTCGGGCCAGAGGCCTGGAGGTTGGCTCTCAGCACCT 181 121

417 AACAGGAAGGACCTGTGGGAGAGAGACAGAGAGAGGACCTGGTGAGGGATACCCCACCT 289

GAAGACCGCAATGCGCGCCTAGGGGAATGTGTCAACCTCAGCCACCGGTACACCCGGCTC 597 GAAGACCGCAATGCGCGCTAGGGGAATGTGTCAACCTCAGCCACCGGTACACCCCGGCTC CTGCTGGTGAAGGAGCACTCAAACCCCATGCAGGTCCAGCAGCAGCTTCTGGACACACAGGC 340 400

399 656 459 716 519 776 579 836 639

> CTGCTGGTGAAGGAGCACTCAAACCCCATGCAGGTCCAGCAGCAGCAGCTTCTGGACACAGGC CGGGGACACGCGAGGACCGTGGGACACCAGGCTAGCCCCATCAAGATAGAGACCCTCTTT 657 460

CGGGGACACGCGAGGACCGTGGGGACACCAGGCTAGCCCCATCAAGATAGAGACCCTTTTT

717

GAGCCAGACGAGGGCCCCGAGCCACGCGCACCGTGATGCAAGGCGCGGCAGGG 777 dadechadadadadadececedadechacededenergenergenadedededededed 520

837 ATAGGCAAGTCCATGCTGGCACACACAGGTGATGCTGGACTGGGCGGACGGGAAGCTCTTC

ATAGGCAAGTCCATGCTGGCACACAAGGTGATGCTGGACTGGGCGGACGGGAAGCTCTTC

Ή;

280 120 340 180 400 240 460 288 520 288 580 339 640 399 700 459 760 519 820 579 880 639 940 669

9

```
OCRLQMIQLRKCQLESGACQEMASVLGTNPHLVELDLTGNALEDLGLRLLCQGLRHPV
KLORTYLMKTCRLTAAACDELASTLSVNQSKRELDLSINBLGDLGVLLLCBGLRHPTC
KLOTLRLGSACCEGLSVVLQANHNLRELDLSFNDLGDWGLWLLAEGLQHPACR
LQKLWWLFGMDLNKMTHSRLAALRVTKPYLDIGC"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                760 GAGCTCATCCGGAGTTCCCGAGCGCCTCCTTTTCATCGACGGCTTCGATGAGCTCAAG 819
                                                                                                                                                                                                                                                                                                                                                                                           281 GAGGCTGTGGAACTGAAGAAGTTATACCTGGGGACCGCGACAGAGAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAAGGCAGATTTGATTATCTCTTCTACATCAACTGCAGGGGAGATGAACCAGAGTGCCACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAATGCAGCATGCAAGACCTCATCTTCAGCTGCTGGCCTGAGCCCAGCGCGCCTCTCCAG
                                                                                                                                                                                                                                                                                                  ATGCTACGAACCGCAGGCACGGCCTCTGTCGCCTGTCCACCTACTTGGAAGAACTC
                                                                                                                                                                                                                                                                                                                        221 ATGCTACGAACGCAGGCAGGCACGCCTCTGTCGCCTGTCCACCTACTTGGAAGAACTC
                                                                                                                                                                                                                                                                                                                                                                          GAGGCTGTGGAACTGAAGAAGTTCAAGTTATACCTGGGGACCGCGACAGAGCTGGGAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGCAAGATCCCCTGGGGAAGCATGGAGAAGGCCGGTCCCCTGGAAATGGCCCAGCTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGCAAGATCCCCTGGGGAAGCATGGAGAAGGCCGGTCCCCTGGAAATGGCCCAGCTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATCACCCACTTCGGGCCAGAGGAGGCCTGGAGGTTGGCTCTCAGCACCTTTGAGCGGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AACAGGAAGGACCTGTGGGAGAGAGACAGAGAGAGGACCTGGTGAGG------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGTGGCCCGTCCTCACTTGGGAACCAGTCAACATGCCTTCTGGAAGTCTCTCTTGTCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   581 CCAAGAAAAGATCCCCAGGAAACCTACAGGGACTATGTCCGCAGGAAATTCCGGCTCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAAGACCGCAATGCGCGCCTAGGGGAATGTGTCAACCTCAGCCACCGGTACACCCGGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAAGACCGCAATGCGCGCCTAGGGGAATGTGTCAACCTCAGCCACCGGTACACCCGGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTGCTGGTGAAGGAGCACTCAAACCCCATGCAGGTCCAGCAGCAGCTTCTGGACACAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTGCTGGTGAAGGAGCACTCAAACCCCATGCAGGTCCAGCAGCAGCTTCTGGACACACAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGGGGACACGCGAGGACCGTGGGACACCAGGCTAGCCCCATCAAGATAGAGACCCTCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGGGGACACGCGAGGACCGTGGGACACCAGGCTAGCCCCATCAAGATAGAGACCCTCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAGCCAGACGAGGGCGCCCCCGAGCCACCGCGCACCGTGGTCATGCAAGGCGCGGCAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAGCCAGACGAGGCGCCCCGAGCCACCGCGCACCGTGATGATGCAAGGCGCGGCAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATAGGCAAGTCCATGCTGGCACACAAGGTGATGCTGGACTGGGCGGACGGGAAGCTCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAAGGCAGATTTGATTATCTTCTACATCAACTGCAGGGAGATGAACCAGAGTGCCACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAATGCAGCATGCAAGACCTCATCTTCAGCTGCTGGCCTGAGCCCAGCGCGCCTCTCCAG
                                                                                                                                                                                                                                                              Gapa
                                                                                                                                                                                                                                                              81;
                                                                                                                                                                                                                         Length 3563
                                                                                                                                                                                                                                                            0; Indels
                                                                     869. .892
/note="Region: P-loop"
2069. .3238
/note="Region: leucine rich repeat"
221. .289
/note="Region: pyrin domain"
                                                                                                                                                                                                                         6
                                                                                                                                                                                                                         8
                                                                                                                                                                                                                       Score 2759; DE
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                       Query Match
Best Local Similarity 97.2%;
Matches 2850; Conservative
                                                                         misc_feature
                                                                                                                                                  misc_feature
                                                                                                             misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          580
                                                                                                                                                                                                                                                                                                  -4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1001
                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               881
                                                                                                                                                                                     ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                          ઠ
                     2919
                                                     3173
                                                                                          2979
                                                                                                                                                                   3039
                                                                                                                                                                                                                                           3099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /codon_start=1
/product="monarch-1 splice form II"
/protein_id="nAM751131"
/db_xref="GI:21711823"
/translation="MLRTAGRDGLCRLSTYLEELEAVELKKFKLYLGTATELGEGKIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       YYSFIHLSFQEFFAAMYYILDEGGGGGGGDVTRLLTEYAFSERSFLALTSRFLFGL
LINETRSHLEKSLCWKVSPHIKMDLLWIOSKAQSDGSTLOQCSLEFFSCLYETQEBE
FIQQALSHPQVIVVSNIASKMEHWYSFCLKRCRSAQVLHLYGATYSADGEDRARCSA
GAHTLLYQLREPRIYLLDAYSEHLAAALCTURNI.IELSLYRNALGSRGWKLLCGGLRH
PNCKLQNLRIKRCRISSSACEDLSAALIANKNLTRMDLSGNGVGFPGMMLLCEGLRHP
                                                                                                                               3233
                                                                                                                                                                                                      3293
                                                                                                                                                                                                                                                                               3353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WGSWEKAGPLEMAQLLITHFGPEBAWRLALSTFERINRKDLWERGQREDLVRDTPPGG
PSSLGNQSTCLLEVSLVTPRKDPQETYRDYVERKERLMEDRNALGESCYNLSHRYTRL
LLVKEHSNPWQVQQLDTGTGHARTYGQASPIKIETLFEPDERRPEPPRTYMQGA
AGIGKSMLAHKVMLDWADGKLPQGRFDYLFYINCREMNQSATECSMQDLIFSCWPEBS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APLQELIRVPERLLFIIDGFDELKPSFHDPQGPWCLCWEEKRPTELLLUNSLIRKKLLP
ELSLLITTRPTALEKLHRLLEHPRHVEILGFSEAERKEYFYKYFHNAEQAGQVFNYVR
DNEPLFTMCFVPLVCWVVCTCLQQQLEGGGLLRQTSRTTTAVYMLYLLSLMQPKPGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRI 21-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

(bases 1 to 3563)
Williams, K. L., Taxman, D.J., Linhoff, M.W., Reed, W. and Ting, J.P.Y. Monarch-1: A Pyrin/Nucleotide-Binding Domain/Leucine-Rich Repeat Protein That Controls Classical and Nonclassical MHC Class I Genes J. Immunol. 170 (11), 5354-5358 (2003)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RLQPPPNQRGLCSLAADGLWNQKILFEEQDLRKHGLDGEDVSAFLNMNIFQKDINCER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2. (bases 1 to 3563)
Williams.K.L., Linhoff,M.W. and Ting,J.P.Y.
Direct Submission
Submitted (29-MAY-2002) Lineberger Cancer Center, UNC, Mason Farm
Road, Chapel Hill, NC 27599, USA
                                                                                                                                                                                                                                                            AAGCGGCTGAGCCATCCTGGCTGCAAACTCCGAGTCCTCTGGTTATTTGGGATGGACCTG
                                                                                                                                                                                                    AAGCGGCTGAGCCATCCTGGCAAACTCCGAGTCCTCTGGTTATTTGGGATGGACCTG
                                                     reredecercacecaagecrucidadaarcriracrireacecredegarcaaceagaec
                                                                                        TTGACCGACCTTTACCTGACCAACACGCCCTAGGGGACACAGGTGCTGCTTTGC
                                                                                                                           TTGACCGACCTTTACCTGACCAACACGCCCTAGGGGACACAGGTGTCCGACTGCTTTGC
                                                                                                                                                                                                                                         AATAAAATGACCCACAGTAGGTTGGCAGCGCTTCGAGTAACAAAACCTTATTTGGACATT
                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens monarch-1 splice form II mRNA, complete cds; AY116205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              <u>-</u>6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1. 3563 / Organism="Homo sapiens" / Mol_type="mRNA" / db_xref="taxon:9606" / chromosome="19"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AY116205.1 GI:21711822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             sapiens (human)
                                                                                                                                                                                                                                                                                                                                     GGCTGCTGA 3108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ношо
                                                     3114
                                                                                                                           3174
                                                                                                                                                               2980
                                                                                                                                                                                                      3234
                                                                                                                                                                                                                                           3040
                                                                                                                                                                                                                                                                             3294
                                                                                                                                                                                                                                                                                                                  3100
                                                                                                                                                                                                                                                                                                                                                     3354
                   2860
                                                                                          2920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PUBMED
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 7
AY116205
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                         셤
                                                                                                                                                                                                  ద
                                                                                                                                                                                                                                                                           ઠે
                                                  g
                                                                                                                                                               ò
                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                     g
                                                                                        ઠે
```

1000

1060

13.00 AGRICOCTOCAMANTGGCCCCCCCTCTCTCTCTCTCTCTCTCTCCACGCGACGCCCC 1259 CAGGCCCCCCACGCCCCCCCCCCCCCCCCCCCCCCCC	RESULT 8 AX833594 LOCUS LOCUS DEFINITION Sequence 718 from Patent EP1347046. ACCESSION AX833594 VERSION AX833594.1 GI:39919729
品格	RESUI AX833 LOCUS DEFIN ACCES

Homo sapiens (human) Homo sapiens Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.	g Vo	
Isogai, T., Sugiyama, T., Otsuki, T., Wakamatsu, A., Sato, H., Ishii, S., Yamamoto, J.I., Isono, Y., Hio, Y., Otsuka, K., Nagai, K., Ithe, R., Tamechika, I., Seki, N., Yoshikawa, T., Otsuka, M., Nagahari, K. and Masuho, Y.	90 O	CATGG
A sequences 046-A 718 24-SEP-2003; ation for Biotechnology (JP)	ò q	820 CCTTCTTTCCACGATCCTCAGGACCCTGGTGCCTCTGCTGGAGGAGAAACGGCCCACG 879
/organism="Homo sapiens" /mol_type="unassigned DNA" /db_xref="taxon:9606"	S G	880 GAGCTGCTTCTTAACAGCTTAATTCGGAAGAAGCTGCTCCCTGAGCTATCTTTGCTCATC 939
Query Match 85.1%; Score 2644.2; DB 6; Length 3466; Best Local Similarity 91.9%; Pred. No. 0; Matches 2931; Conservative 0; Mismatches 3; Indels 255; Gaps 3;	ço da	940 ACCACACGCCCACGCTTTGGAGAAGCTCCACCGTCTGCAGACACCCCAGGCATGTG 999
GOGACGACCTCTGTCGCCTGTCCACTTGGAAGAACTC 60	λό qa	1000 GAGATCCTGGGCTTCTCTGAGGCAGAAGGAATACTTCTACAAGTATTTCCACAAT 1059
GAGGCTGTGGAACTGAAGATCTCAAGTTATACCTGGGAACGGACGG	승 옵	GCAGAGCAGGCCAAGTCTTCAATTACGTGAGGACAACGAGCCTCTCTTCACCATG [
	& a	1120 TGCTTCGTCCCCTGGTGTGCTGGTGTGTACTGCCTCCAGCAGCAGCAGCGGGGGT 1179
	λο qα	1180 GGGGGCTGTTGAGACAGACGTCCAGGACCACCACTGCAGTGTACATGCTCTACCTGCTG 1239
TOO CT	y d	1240 AGTCTGATGCAACCCAAGCCGGGGCCCCGCGCCTCCACCCCACCCA
	& a	1300 TTGTGCTCCTTGGCGGCAGATGGGCTCTGGAATCAGAAATCCTATTTGAGGAGCAGGAC 1359
GGIGGCCGGCCGCCCCCCCCCCCCCCCCCCCCCCCCCC	6 음	1360 CTCCGGAAGCACGGCCTAGACGGGGAAGACGTCTGCCTTCCTCAACATGAACATCTTC 1419
	& g	1420 CAGAAGGACATCAACTGTGAGAGGTACTACAGCTTCATCCACTTGAGTTTCCAGGAATTC 1479 1645 CAGAAGGACATCAACTGTGAGAGGTACTACAGCTTCATCCACTTGAGTTTCCAGGAATTC 1704
	& 8 6	1480 TTTGCAGCTATGTACTATATCCTGGAGGAGGGGGGGGGG
CGGGGACAGGGAGGACGGACGACAGGCTAGCTAGCAGCTACTITIGGACACAGGC 884 CGGGGACACGGGAGGACGCAGGGCTAGCCCATCAAGATAGAGACCCTCTT 519 CGGGACAGGCGAGGACGACAGCAGGCTAGCCCCATCAAGATAAAAAACCCTCTTT 744	oy d	1540 GTGACCAGGCTGTTGACCGAGTACGCGTTTTCTGAAAGGAGCTTCCTGGCACTCACCAGC 1599
	δ q	1600 CGCTTCCTGTTTGGACTCCTGAACGAGACCAGGAGCCACCTGGAGAAGAGTCTCTGC 1659
	රු යි	1660 TGGAAGGTCTCGCCGCACATCAAGATGGACCTGTTGCAGTGGATCCAAAGCAAAGCTCAG 1719
640 CAAGGCAGATTTGATTATCTCTACTACATGAAGGGAGAGGAGAAGCCAGAGGGCAGG 699	λο 	1720 AGGACGGCTCCACCCTGCAGGGCTCCTTGGAGTTCTTCAGCTGCTTGTACGAGATC 1779

us-10-781-294-23.rge

```
1540 GTGACCAGGCTGTTGACCGAGTACGCGTTTTCTGAAAGGAGCTTCCTGGCACTCACCAGC 1599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCAGAGCAGGCGGCCAAGTCTTCAATTACGTGAGGGACAACGAGCCTCTCTTCACCATG
                                                                                GAGCCAGACGAGGAGCCCCCGAGCCACCGCGCACCGTCATGCAAGGCGCGCGGGGG
                                                                                                                               ATAGGCAAGTCCATGCTGGCACACAAGGTGATGCTGGACTGGGCGGGAAGCTCTTC
                                                                                                                                                 1105 GAGCTGCTTTAACAGCTTAATTCGGAAGAAGCTGCTCCCTGAGCTATCTTTGCTCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCACACGGCCCACGGCTTTGGAGAAGCTCCACCGTCTGCTGGAGACACCCCAGGCATGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGGGGGCTGTTGAGACAGACGTCCAGGACCACCACTGCAGTGTACATGCTCTACTGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1525 TIGIECTICCTIGGCGCCAGAIGGGCTCTGGGAATCAGAAATCCTAITTGAGGAGCAGAGACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTCCGGAAGCACGGCCTAGACGGGAAGACGTCTCTCCTCACAACATGAACATCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAGAAGGACATCAACTGTGAGGTACTACAGCTTCATCCACTTGAGTTTCCAGGAATTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            685 CGGGGACACGCGAGGACCGTGGGACCCCCATCATATAGAGACCCTCTTT
                                                                  GAGCCAGACGAGCGCCCCGAGCCACCGCGCACCGTGGTCATGCAAGGCGCGGGCAGGG
                                                                                                                                                                                          CAAGGCAGATTTGATTATCTCTTCTACATCAACTGCAGGGAGATGAACCAGAGTGCCACG
                                                                                                                                                                                                                CAAGGCAGATTTGATTATCTCTTCTACATCAACTGCAGGGAGATGAACCAGAGTGCCACG
                                                                                                                                                                                                                                                         GAATGCAGCATGCAAGACCTCATCTTCAGCTGCTGGCCTGAGCCCAGCGCGCCTCTCCAG
                                                                                                                                                                                                                                                                                GAATGCAGCATGCAAGACCTCCATCTTCAGCTGGCTGGCCTGAGCCCAGCGCGCCTCTCCAG
                                                                                                                                                                                                                                                                                                                    GAGCTCATCCGAGTTCCCGAGGCCTCCTTTTCATCATCGACGGCTTCGATGAGCTCAAG
                                                                                                                                                                                                                                                                                                                                                     GAGCTCATCCGAGTTCCCGAGCGCCTTCTTTCATCATCGACGGCTTCGATGAGCTCAAG
                                                                                                                                                                                                                                                                                                                                                                                     CCTTCTTTCCACGATCCTCAGGGACCCTGGTGCCTCTGCTGGGAGGAGAAACGGCCCACG
                                                                                                                                                                                                                                                                                                                                                                                                                    GAGCTGCTTCTTAACAGCTTAATTCGGAAGAAGCTGCTCCCTGAGCTATCTTTGCTCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCACACGCCCACGGCTTTGGAGAAGCTCCACCGTCTGCTGGAGCACCCCCAGGCATGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAGATCCTGGGCTTCTCTGAGGCAGAAGGAAGGAATACTTCTACAAGTATTTCCACAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1225 GAGATCCTGGGCTTCTCTGAGGCGGGAGAAGGAATACTTCTACAAGGTATTTCCACAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1120 TGCTTCGTCCCCCTGGTGTGCTGGTGTGTGTACTGCCTCCAGCAGCAGCAGCGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      recricereceregrerecressrearsrancerecreecressasses
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGTCTGATGCAACCCAAGCCGGGGGCCCCGCGCCTCCAGCCCCCCAACCAGAGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TTGTGCTCCTTGGCGCAGATGGGCTCTGGAATCAGAAATCCTATTTGAGGAGCAGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTCCGGAAGCACGGCCTAGACGGGGAAGACGTCTCTGCCTTCCTCAACATGAACATCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAGAAGGACATCAACTGTGAGAGGTACTACAGCTTCATCCACTTGAGTTTCCAGGAATTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1465 /
    160
                                                                520
                                                                                               745
                                                                                                                               580
                                                                                                                                                                                            640
                                                                                                                                                                                                                          865
                                                                                                                                                                                                                                                                                                                                                     985
                                                                                                                                                                                                                                                                                                                                                                                     820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1480
                                                                                                                                                                                                                                                         700
                                                                                                                                                                                                                                                                                                                                                                                                                                                    880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1705
                                                                                                                                                                                                                                                                                                                        760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1420
                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                            a
                                                                상
유
                                                                                                                     ઠ
                                                                                                                                                       d
                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                 ઠ
                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                      Signgal, T. and Yanamoto, J.

Elsogal, T. and Yanamoto, J.

Direct Submission

Direct Submission

Submitted (04-JUJ_2002) Takao Isogai, FLJ Project (HRI Team); 2-6-7

Kazusa-Kamatari, Kisarazu, Chiba 292-0812, Japan

Kazusa-Kamatari, Kisarazu, Chiba 292-0812, Japan

(E-mail:genomics@hri.co.jp, Tel:81-438-52-3975, Fax:81-438-52-3986)

NEDO human cDNA sequencing project supported by Ministry of

Economy, Trade and Industry of Japan, CDNA full insert sequencing:

Research Association for Biotechnology (RAB); cDNA library

construction: Helix Research Institute (HRI) (supported by Japan

Key Technology Center etc.); 5'- & 3'-end one pass sequencing: RAB,

HRI, and Biotechnology Center, National Institute of Technology and

Evaluation; clone selection for full insert sequencing: HRI and

RAB; annotation: HRI and RAB.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAAGACCGCAATGCGCGCCTAGGGAATGTGTCAACCTCAGCCACCGGTACACCCGGCTC 399 ... ;
                                                                                                                                                                                                                                                                                                                                                1. .3466
/organism="Homo sapiens"
/organism="Homo sapiens"
/mol_type="mxNa"
/db xxef="texcn:9606"
/clone="D9OST2002673"
/clone lib="D9OST2"
/clone lib="D9OST2"
/note="cloning vector: pME18SFL3-mRNA from CD34+ cells after 9-days ODF induction.-primary culture, CD34+ Cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTGCTGCTGGTGAAGGACACTCAAACCCCATGCAGGTCCAGCAGCAGCTTCTGGACACAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGTGGCCCGTCCTCACTTGGGAACCAGTCAACATGCCTTCTGGAAGTCTCTTGTCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAAGACCGCAATGCGCGCCTAGGGGAATGTGTCAACCTCAGCCACCGGTACACCCGGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATGCTACGAACCGCAGGGACGGCCTCTGTCGCCTGTCCACCTACTTGGAAGAACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGCAAGATCCCCTGGGGAAGCATGGAGAAGGCCGGTCCCCTGGAAATGGCCCAGCTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATCACCCACTTCGGGCCAGAGGAGGCCTGGAGGTTGGCTCTCAGCACCTTTGAGCGGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AACAGGAAGGACCTGTGGGAGAGAGACAGAGAGACCTGGTGAGG------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTGCTGGTGAAAGGAGCACTCAAACCCCATGCAGGTCCAGCAGCAGCAGCATCTGGACAACAAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
Yamamoto, J., Isono, Y., Kawai-Hio, Y., Saito, K., Nishikawa, T., Kimura, K., Yamashita, H., Matsuo, K., Nakamura, Y., Sekine, M., Kikuchi, H., Murakawa, K., Kanehori, K., Takahashi-Fujii, A., Oshima, A., Sugiyama, A., Kawakami, B., Suzuki, Y., Sugano, S., Nagahari, K., Masuho, Y., Nagai, K. and Isogai, T., Sugano, S., Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3; Indels 255;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9; Length 3466;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 85.1%; Score 2644.2; Best Local Similarity 91.9%; Pred. No. 0; Matches 2931; Conservative 0; Mismatches
                                                                                                             (bases 1 to 3466)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            505
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          625
                                                                           TITLE
JOURNAL
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                     FEATURES
                                                                                                                                                                                                         COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       සු
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
```

1059

1224

999

1044

1104

879

1164

939

1284

1119

1179

1404

1344

1239

1464

1299

1524

1359

1584

1419

1644

1479

1704

1539

ATAGGCAAGTCCATGCTGCACAAGGTGATGCTGGACTGGGGGAAGGTCTTC 94 CAAGGCAAGTTTGATTATCTCTTCTACATCACTGCAGGAGATGAACCAGGAAGGTCTTC 69 CAAGGCAGATTTGATTATCTCTTCTACATCACTGCAGGAGATGATCAACCAGAGTGCCACG 69 CAAGGCAGATTTGATTATCTTCTACATCAACTGCAGGAGATGATCAACCAGAGTGCCACG GAATGCAGCATTTGATTTTTTTATCATCATCAGTGCCTCAGCGCCCTCTCCAG GAATGCAGCATCCAGCTCATCTTTCACTGTGGCCCTAGAGCCTCTCCAG GAGCTCATCCGAGTTCCCGAGCGCCTCTTTTCATCATCGACGCCTTCGATGAGCTCAAG GAGCTCATCCGAGTTCCCGAGCGCCTCTTTTCATCATCGACGGCTTCGATGAGCTCAAG CCTTCTTTCCACGAGTCCTCAGGGACCCTGGTGCCTTCGATGAGCTCAAG CCTTCTTTCCACGAGTCCTCAGGGACCCTGGTGCCTTCGTTGGAGGCCCACG CCTTCTTTCCACGAGTCCTCAGGGACCCTGGTGCCTTCTTCATCGTTGGAGAAACGGCCCACG CCTTCTTTCCACGAGACCTTAATTCGGAAGAGACTCCTTGGTGGAGAAACGGCCCACG GAGCTGCTTTTAAACAGGTAATTCGGAAGAGACTCCCTGAGCTATCTTTGCTCATC GAGCTGCTTCTTTAACAGGCTTAATTCGGAAGAGCTGCTCCCTGAGCTATCTTTGCTCATC GAGCTGCTTCTTTAACAGGACCTTAATTCGGAAGAAGCTGCTCCCTGAGCTATCTTTGCTCATC GAGCTGCTTCTTTAACAGGAACCTTAATTCGGAAGAAGCTGCTCCCTGAGCTATCTTTGCTCATC AGGCTGCTTCTTTAACAGGAACCTTAATTCGGAAGAAACGCCCTCTGAGCTATCTTTGCTCATC AGGCTCCTTCTTAACAGGCTTAATTCGGAAGAAACGCTCCCTGAGCTATCTTTGCTCATC AGGCTCCTTCTTAACAGGAACCTTAATTCGGAAGAAACGCTCCCTGAGCTATCTTTTGCTCATC AGGCTCCTTCTTAACAGGAACCTTAATTCGGAAGAAACGCTCCCTGAGCTATCTTTTGCTCATC AGGCTCCTTCTTAACAGGAACCTTAATTCGGAAGAAACGCTCCCTGAGCTATCTTTTGCTCATC AGGCTCCTTCTTTAACAGGAACCTTAATTCGGAAGAAACGCCCCTGAGCTATCTTTTGCTCATC AGGCTCCTTCTTAACAGCTTAATTCGGAAGAACGCTCCCTTGAGCTTTTTTGCTCATC AGGCTCCTTCTTTAACAGCTTAATTCGGAAGAACGCTCCCTTTTTTTT	940 ACCACACGCCCACGCTTTGGAGAGCTCCACCGTCTGCTGGAGCACCCCAGGCATGTG 999 1241 ACCACAGGCCTCTGGGGAGAGCTCCACGCTGTGGTGTTTTTTTT	1060 GCAGAGCAGGCCAAGTCTTCAATTACGTGAGGACAACGAGCCTCTTCACCATG 1119	1180 GGGGGGCTGTTGAGACGTCCAGGACCACCACTGCAGTGTACATGCTCTACCTGCTG 1239	1300 TTGTGCTCCTTGGCGGCAGATGGGCTCTGGAATCAGAAATCCTATTTGAGGAGCAGGAC 1359 1601 TTGTGCTCCTTGGCGGCAGATGGGCTCTGGAATCAGAAATCCTATTTGAGGAGCAGGAC 1660 1360 CTCCGGAAGCAGGGCTAGACGGGGAAGACCTCTCTCCTCATTTGAGGACTCTTC 1419 1361 CTCCGGAAGCACGGCCTAGACGGGGAAGACGTCTTCTTC 1419 161	1420 CAGAAGACATCAACTGTGAGGAACTACAGCTTCATCCACTTGAGTTTCCAGGAATTC 1479	1540 GTGACCAGGCTGTTGACCGGGTTTTCTGAAAGGAGCTTCCTGGCACTCACCAGC 1599 1841 GTGACCAGGCTGTTGACCGAGTACGCGTTTTCTGAAAGGAGCTTCCTGGCACTCACCAGC 1500 1600 CGCTTCCTGTTTGAACTGACGAGTACCAGAGAGCTTCCTGGCAGAAGAGTCTCTGC 1659 1901 CGCTTCCTGTTTGAACTCCTGAACGGAGACCAGAGAGAAGAAGAAGAAGATCTCTGC 1659 1901 CGCTTCCTGTTTGAACTCCTGAACGAGAGCACCAGAGAAGAAGAAGAAGAAGAAGAAGAA	
8 4 8 4 8 4 8 8 8 8 8	8 6 8	8 8 8	6666	6666	8 8 8	8 6 8 6 8 6	
PSSLGNGSTCLLEVSLVTPRKDPQETYRDYVRRKFRLMEDRNARLGECVNLSHRYTRL LLVKEHSNPMOVQQULDTGRGHARTVGHQASPIXIETLEPDEBRPPERTVVNGGA AGIGKSKLMARIKVMLDNADGSLFOXEPIXIETLEPDEBRPPRTVVNGGA AGIGKSKLMARIKVMLDNADGSLFOXEPIXICREMNQSATECSMODLIFSCYPEPS APLOELIRVPERLLFIIDGPDELKPSFHDPQGPWCLCWEEKRFTELLINGLIFSKKLLP ELSLLITTRPTALEXLHRLLHPRHYBILGFSEARKEYFYKYFTHAAQAGOVENYVR DNEDLFTWCFVPLVCWVCTCLQQUEGGGLLRQTSRTTTAVYMLYLLSLMQPKPGAP RLQPPPNOKGGLGSLAADGLANNQKILEBEQDLKRFGLJGSONSAFLANNIFOKDINGER YYSFILLSYGEFFAAMYYILDGSGGGAGPODOVTRLLTTSYAFSBRSFLALTSRELGGL LNBETRSHLEKSLCWKVSPHIKMDLLQWIOSKAGSGGTLQGGSLEFFSCLYEIQBE FIQQALSHPROVIVORNIASKMEHWYSSFCLKGCRGAQFOGGNLFAGTLCGGIRHPV GRLQMLQMIQUKCQUESGACGEMASVLGTNPNLIELSLYRNALGSRGVGLFGGLRHPV GRLQMLQMIQUKCQUESGACGEMASVLGTNPNLIELSLYRNALGBTGURLLCGGIRHPV GRLMTLMLMLDSCGLTAKACENLYFTLGINQTLTDLYTNNALGBTGURLLCGGIRHPV GRLMTLMLMLDSCGLTAKACENLYFTLGINQTLTDLYTNNALGBTGURLLCKRLSHP GCKLRTLMLMLDSCGLTAKACENLYFTLGINQTLTDLYTNNALGBTGURLLCKRLSHP GCKLRTLMLMLDSCGLTAKACENLYFTLGINGTTDLYTNNALGBTGURLCKRLSHP GCKLRTLMLMLDSCGLTAKACENLYFTLGINGTTDLYTNNALGBTGURLCKRLSHP GCKLRTLMLMLDSCGLTAKACENLYFTLGINGTTDLYTNNALGBTGURLCKRLSHP GCKLRTLMLMLDSCGLTAKACENLYFTLGINGTTDLYTNNALGBTGURLCKRLSHP GCKLRTLMLMLDSCGLTAKACENLYFTLGINGTTDLYTNNALGBTGURLCKRLSHP GCKLRTLMLMLDSCGLTAKACENLYFTLGINGTTDLYTNNALGBTGURLCKRLSHP GCKLRTLMLMLDSCGLTAKACENLYFTLGINGTTDLYTNNALGBTGURLCKRLSHP GCKLRTLMLMLDSCGLTAKACENLYFTLGINGTTDLYTNNALGBTGURLCKRLSHP GCKLRTLMLMLDSCGLTAKACENLYFTLGINGTTDLYTNNALGBTGURLCKRLSHP ADOTE="Region: P-loop" INCE="Region: P-loop" ADOTE="Region: P-loop"	tch al Similarity 94.5%; Score 2470; DB 9; Length 3395; 2616; Conservative 0; Mismatches 65; Indels 87; Gaps 2; 1 ATGCTACGAACGCAGGCAGGCGCCTCTGTCCACCTACTTGGAAGAACTC 60	GAGGCTGTGGAACTTCAACTTGTACCTGGGACCGGCAGCAGGCGGAA 120 HILLHILLHILLHILLHILLHILLHILLHILLHILLHIL		28 28 28 33 33 34 54 54 54 54 54 54 54 54 54 54 54 54 54	39 70 70 45	CCCTTT 519	-T
misc_feature misc_feature misc_feature	Query Match Best Local Similarity Matches 2616; Conser Qy 1 ATGCTACGA Db 221 ATGCTACGA	Oy 61 Db 281 Oy 121	181 181 401 241	289 289 521 289 581	340 641 400	761 761 520 821 580	

ð 셤 ò 셤

```
6
                 ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                      AUTHORS
TITLE
JOURNAL
DEFINITION
                                                                                                        AUTHORS
TITLE
                                                                                                                                                 PUBMED
REFERENCE
                                                                                             REFERENCE
                                                                                                                                        JOURNAL
                                                                                                                                                                                                                                                                                           CDS
                                                                                                                                                                                                                  PEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Trcacctregegarcarcadecarectraceacertracergacearargeceragge 2920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GACCTCGGGGTGCTGCTGTGTGTGAGGGCCTCAGGCATCCCACGTGCAAGCTCCAGAACC 2673
                                                                                                                                                                                                                                                                                                                                                                                                                                               2379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2860
                                                                                                                                                                                                                                                                                                                                       2500
                                                                                                                                                                                                                                                                                                                                                                                                      2319
                                                                                                                                                                                                                                                                                                                                                                                                                           2620
                                                                                                                                                                                                                                                                                                                                                             2259
                                                                                                                                                                                                                                                                                                                                                                                  2560
                                                                                                                                                                                                                                                                                                                  2199
                                                                           2140
                                                                                                 1899
                                                                                                                                           1959
                                                                                                                                                               2260
                                                                                                                                                                                    2019
                                                                                                                                                                                                          2320
                                                                                                                                                                                                                             2079
                                                                                                                                                                                                                                                   2380
                                                                                                                                                                                                                                                                         2139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2801 ACTITGIGGCIGGGGGGGGATAGCIGIGGCCICACAGAGCATAGAGAAICITAC
                                                                                                                                                                                                                                                                                                                                                                                                      AACGGCGTTGGATTCCCAAGGCATGATGCTGCTTTGCGAGGGCCTGCGGGCATCCCCAGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                    GCTTCTGTGCTCGGCACCAACCCACATCTGGTTGAGTTGGACCTGACAGGAAATGCACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2681 GCTICTGTGCTCGGCACCAACCCACATCTGGTTGAGTTGGACCTGACAGAAATGCACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAGGATTTGGGGCCTGAGGTTACTATGCCAGGGACTGAGGCACCCAGTCTGCAGACTACGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACTITIGIGGCIGAAGAT-----CTGCCGCCTCACTGCTGCTGCTGACGAGCTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCAACTCTCAGTGTGAACCAGAGCCTGAGAGCTGGACCTGAGCCTGAATGAGCTGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2921 GACACAGGTGTCCGACTGCTTTGCAAGCGGCTGAGCCATCCTGGCTGCAACTCCGAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGGCTGCAGATGATTCAGTTGAGGAAGTGTCAGCTGGAGTCCGGGGGCTTGTCAGGAGATG
                                                                                                                                                                                                 2261 TCCGCAGGAGCGCACACGCTGTTGGTGCAGCTCAGACCAGAGAGACCGTTCTGCTGGAC
                                                                                                                                                                                                                               GCCTACAGTGAACATCTGGCAGCGGCCCTGTGCACCAATCCAAACCTGATAGAGCTGTCT
                                                                                                                                                                                                                                          2321 GCCTACAGTGAACATCTGGCAGCGGCCCTGTGCACCAATCCAAACCTGATAGAGCTGTCT
                                                                                                                                                                                                                                                                        CTGTACCGAAATGCCCTGGGCGGGGGGGGGAAAGCTGCTCTGTCAAGGACAGCTACAGACAC
                                                                                                                                                                                                                                                                                     CCCAACTGCAAACTTCAGAACCTGAAGGCTGAAGAGGTGCCGCATCTCCAGCTCAGCCTGC
                                                                                                                                                                                                                                                                                                                              2200 gaggaccrcrcrcaracccaaraccaaragaarrrgacaaggarcrcagrggc
                                                                                                                                                                                                                                                                                                                                                                       TCCGCAGGAGCGCACACGCTGTTGGTGCAGCTCAGAGCAAGAGGACCGTTCTGCTGGAAC
                                                      CAGGAGGAGGATTTATCCAGCAGGCCCTGAGCCACTTCCAGGTGATCGTGGTCAGCAAC
                                                                                                ATTGCCTCCAAGATGGAGCACATGGTCTCCTCGTCTGAAGCGCTGCAGGAGCGCC
                                                                                                             2081 CAGGAGGAGGAGTITAICCAGCAGGCCCTGAGCCACTTCCAGGTGATCGTGGTCAGCAAC
                                                                                                                                           1900 CAGGIGCIGCACTIGIATGGCGCCACCIACAGCGCGGACGGGAAGACCGCGCGAGGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               || || CTCTGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTGCGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2861
                                                                                                                                                                                                                                                                                                                                                                                                                                                       2320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2554
                                                                                                                                                                                                                                                                                                                                                                                       2501
                                                                                                                                                                                                                                                                                                                                                                                                             2260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2741
                                                                                                                                                                                                                                                                              2080
                                                                                                                                                                                                                                                                                                  2381
                                                                                                                                                                                                                                                                                                                        2140
                                                                                                                                                                                           1960
                                                                                                                                                                                                                                    2020
                   1720
                                       2021
                                                           1780
                                                                                                      1840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                   8 6 6 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                            엄
                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                            ò
```

엄 ò 임 ò g 8

g ò g ઠે

ò

g ò

PRI 21-MAY-2003

linear

mRNA

3221 bp

AY116207

RESULT 11 AY116207 LOCUS

```
120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (hases 1 to 3221)
Williams, K.L., Taxman, D.J., Linhoff, M.W., Reed, W. and Ting, J.P.Y.
Monarch-1: A Pyrin/Nucleotide-Binding Domain/Leucine-Rich Repeat
Protein That Controls Classical and Nonclassical MHC Class I Genes
J. Immunol. 170 (11), 5354-5358 (2003)
                                                                                                                                                                                                                                           Theses 1 to 3221)

Williams, X.L., Linhoff, M.W. and Ting, J.P.Y.

Direct Submission

Submitted (29-MAY-2002) Lineberger Cancer Center, UNC, Mason Farm

Road, Chapel Hill, NC 27599, USA

Road, Chapel Hill, NC 27599, Line
                                                                                                                                                                                                                                                                                                                                                                                                                                          <u>-</u>6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAGGCTGTGGAACTGAAGATTCAAGTTATACCTGGGGACCGGCGACAGAGCTGGGAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 ATGCTACGAACCGCCAGGGACGGCCTCTGTCGCCTGTCCACCTACTTGGAAGAACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                          and
                                                                                                                                                                                                                                                                                                                                                                                                                                    121. .2899
note="contains alternatively spliced exons 7, 8
Homo sapiens monarch-1 splice form IV mRNA, complete cds;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            81;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 2417; DB 9; Length 3221;
Pred. No. 0;
0; Mismatches 0; Indels 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note="Region: P-loop"
2069. .2896
/note="Region: leucine rich repeat"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note≂"Region: pyrin domain"
                                                                                                                                                                                                                                                                                                                                                /organism="Homo sapiens"
/mol_type="mRNA"
/mol_type="mRNA"
/dx_rref="taxon:9606"
/chromosome="19"
                                                      AY116207.1 GI:21711826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 77.8%;
Best Local Similarity 96.9%;
Matches 2508; Conservative
                                                                                  Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
```

ò 셤

유

g ò

8

임

ò

```
CCCACGGCTTTGGAGAAGCTCCACGGTCTGGAGCACCCCAGGCATGTGGAGATCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGCTTCTCTGAGGCAGAAAGGAATACTTCTACAAGTATTTCCACAATGCAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCGGGCCAAGTCTTCAATTACGTGAGGGACAACGAGCCTCTTCACCATGTGCTTCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CITAACAGCITAAITCGGAAGAAGCTGCTCCCTGAGCTATCTTTGCTCATCACCACACGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CACGATCCTCAGGGACCCTGGTGCTTGGGAGGAGAAAAGGGCCCACGGAGCTGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                     gcgaggaccgrocaccacagcrragccccarcaagaragagacccrrrrrgagccagac
                                                                                                                                                                                                                                                                                                                                                                                                                                             TTGATTATCTCTTCTACATCAACTGCAGGAGATGAACCAGAGTGCCACGGAATGCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATGCAAGACCTCATCTTCAGCTGCTGGCCTGAGCCCAGCGCGCCTCTCCAGGAGCTCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cgagricccgagcgcgrccrrrrcarcarcgacggcrrcgargacgcrcaagccrrrc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAGGAGCACTCAAACCCCCATGCAGGTCCAGCAGCTTCTGGACACAGGCCGGGGGACAC
                                                                                                                                                                                                                         GATCCCCAGGAAAACCTACAGGGACTATGTCCGCAGGAAATTCCGGCTCATGGAAGACCGC
                                                                                                                                                                                                                                                                                        AATGCGCGCCTAGGGGAATGTGTCAACTCAGCCACCGGTACACCCGGCTCCTGCTGGTG
                                                                                                                                                                                                                                                    80021 ĠATCCCCAGGAAACCTACAGGACTATGTCCGCAGGAATTCCGGCTCATGGAAGACCGC
                                                                                                                                                         Length 147330;
                                                                                                                                                                                           Indels
                                                                                                                                                                                             ;
0
                                                                                                                                                              DB 9;
                                                                                                                                                            54.8%; Score 1703; Carity 100.0%; Pred. No. 0; Conservative 0; Mismatches
number of bases overlapped is 22832.
Location/Qualifiers
                                1. .147330
/organism="Homo sapiens"
                                                              /mol_type="genomic_DNA"
/db_xref="taxon:9606"
/chromosome="19"
/clone="CTD-3022G6"
                                                                                                                                                                                    Similarity
                                                                                                                                                                                      Best Local Sim:
Matches 1703;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              769
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             79601
                                                                                                                                                                                                                                     289
                                                                                                                                                                                                                                                                                                   349
                                                                                                                                                                                                                                                                                                                                                                 409
                                                                                                                                                                                                                                                                                                                                                                                                                                  469
                                                                                                                                                                     Query Match
                      FEATURES
                                                                                                                                        ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                  ે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                  ద
                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              www.jgi.doe.gov
Pinishing Completed at Stanford Human Genome Center
Pinishing Completed at Stanford Human Genome Center
www-shgc.stanford.edu
Quality: Phrap Quality >=40 99.6% of Sequence;
Bstimatry Thrap Quality of Errors is 0.5.
Bstimat This insert is not the entire sequence of the clone (entire sequence is 160kb). It is clipped at the overlap with AC008440. The
                                                                                                       2380 GCTTCTGTGTCGGCACCAACCCACATCTGGTTGAGTTGGACCTGACAGGAAATGCACTG 2439
                                                                                                                            2681 GCTTCTGTGCTCGGCACCACCACCTCTGGTTGAGTTGGACCTGACAGGAAATGCACTG 2740
                                                                                                                                                                       2499
                                                                                                                                                                                          PRI 22-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Direct Submission (22-NOV-2002) DOB Joint Genome Institute, 2800 Mitchell Brunitted (122-NOV-2002) DOB Joint Genome Institute, 2800 Mitchell Drive, Walnut Creek, CA 94598, USA (base 1 to 147330) DOB Joint Genome Institute and Stanford Human Genome Center. Direct Submission Submitted (22-MAR-2003) DOB Joint Genome Institute, 2800 Mitchell Direc, Walnut Creek, CA 94598, USA ON Vo. 21, 2002 this sequence version replaced gi:9937751. Draft Sequence Produced by DOB Joint Genome Institute
        2561 AACGGCGTTGGATTCCCAGGCATGATGCTGCTTTGCGAGGGCCTGCGGCATCCCCAGTGC 2620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Submitted (03-AUG-1999) Production Sequencing Facility, DOE Joint Genome Institute, 2800 Mitchell Drive, Walnut Creek, CA 94598, USA 3 (Dases 1 to 147330)
DOE Joint Genome Institute and Stanford Human Genome Center.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Direct Submission
Submitted (29-AUG-2000) DOB Joint Genome Institute, 2800 Mitchell
Brive, Walnut Creek, CA 94598, USA
4 (bases 1 to 147330)
DOB Joint Genome Institute and Stanford Human Genome Center.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Direct Submission
Submitted (21-NOV-2002) DOE Joint Genome Institute, 2800 Mitchell
Submitted (21-NOV-2002) DOE Joint Genome Institute, Rannut Creek, CA 94598, USA
6 (bases 1 to 14730)
DOE Joint Genome Institute and Stanford Human Genome Center.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Direct Submission
Submitted (06-NOV-2002) DOE Joint Genome Institute, 2800 Mitchell
Brive, Walnut Creek, CA 94598, USA
5 (bases 1 to 147380)
DOE Joint Genome Institute and Stanford Human Genome Center.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryola, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                                                                                                          ACO08753 147330 bp DNA linear PRI 22-MAR-
Homo sapiens chromosome 19 clone CTD-3022G6, complete sequence.
ACO08753
                                                                                                                                                                        GAGGATTTGGGCCTGAGGTTACTATGCCAGGACTGAGGCACCCAGTCTGCAGACTACGG
                                           AGGCTGCAGATGATTCAGTTGAGGAAGTGTCAGCTGGAGTCCGGGGGCTTGTCAGGAGATG
                                                               2621 AGGCTGCAGATGATTCAGTTGAGGAAGTGTCAGCTGGAGTCCGGGGCTTGTCAGGAGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 (bases 1 to 147030)
DOE Joint Genome Institute and Stanford Human Genome Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2 (bases 1 to 147330)
DOE Joint Genome Institute.
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                          AC008753.9 GI:25140998
                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Direct Submission
Unpublished
                                                                                                                                                                                                                                                                              2801 ACTITICICS 2809
                                                                                                                                                                                                                                               ACTITGIGG 2508
                                                                                                                                                                                 2440
                                                                                                                                                                                                                                               2500
                                                   2320
                                                                                                                                                                                                                                                                                                                             RESULT 12
AC008753/c
                                                                                                                                                                                                                                                                                                                                                             LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
AUTHORS
TITLE
JOURNAL
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMMENT
```

79722

648

528

708

79962

ö 348

Gaps ; 0 79122

79422

79362

9

ï

1527

120

1587

180

1647

240

1707

300

1767

360

1827

420

1887

480

1947

540

2007

597

2067

657

2127

717

2187

777

2247

837

셤

ઠે

g

ò

g δ 셤 ò 엄 ò g ઠે d à 임

ò

```
2248 GATCTCAGTGGCAACGGCGTTGGATTCCCAGGCATGATGCTGCTTTGCGAGGGCCTGCGG 2307
                                                                                                                                                                                                                                                                                                                                                                                       CCAGACCAGGACGTGACCAGGCTGTTGACCGAGTACGCGTTTTCTGAAAGGAGCTTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGCTCAGCCTGCGAGGACCTCTCTGCAGCTCTCATAGCCAATAAGAATTTGACAAGGATG
                                                                                                                                                                                                                                               1408 ATGAACATCTTCCAGAAGGACATCAACTGTGAGAGGTACTACAGGTTCATCCACTTGAGT
                                                                                                                                                                                                                                                              TTCCAGGAATTCTTTGCAGCTATGTACTATATCCTGGACGAGGGGAGGGCGGGGCAGGC
                                                                                                                                                                                                                                                                                                                            CCAGACCAGGACGTGACCAGGCTGTTGACCGAGTACGCGTTTTCTGAAAGGAGCTTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                    GCACTCACCAGCCGCTTCCTGTTTGGACTCCTGAACGAGGAGCCAGGAGCCACCTGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCACTCACCAGCCGCTTCCTGTTTTGGACTCCTGAACGAGGAGACACAGGAGACCACGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAGAGTCTCTGCTGGAAGGTCTCGCCGCACATCAAGATGGACCTGTTGCAGTGGATCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGCAAAGCTCAGAGCGACGGCTCCACCCTGCAGGGGCTCCTTGGAGTTCTTCAGCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTGTACGAGATCCAGGAGGAGGTTTATCCAGCAGGCCCTGAGCCACTTCCAGGTGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TIGITACGAGATCCAGGAGGAGAGTTTATCCAGCAGGCCCTGAGCCACTTCCAGGTGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GTGGTCAGCAACATTGCCTCCAAGATGGAGCACATGGTCTCCTCGTTCTGTAGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gredicadedacarrecerceaagaresaceacaresererecercerrereresadese
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGCAGGAGCGCCCAGGTGCTGCACTTGTATGGCGCCACCTACAGGCGCGGACGGGGAAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGCGCGAGGTGCTCCGCAGGAGCGCACACGCTGTTGGTGCAGCTCAGACCAGAGAAGAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGCGCGAGGTGCTCCGCAGAGCGCACACGCTGTTGGTGCAGCT---ACCAGAGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTTCTGCTGGACGCCTACAGTGAACATCTGGCAGCGGCCCTGTGCACCAATCCAAACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTTCTGCTGGACGCCTACAGTGAACATCTGGCAGCGGCCCTGTGCACCACAACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATAGAGCTGTCTCTGTACCGAAATGCCCTGGGCAGCCGGGGGGTGAAGCTGCTCTGTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGACTCAGACACCCCAACTGCAAACTTCAGAACCTGAGGCTGAAGAGGTGCCGCATCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGCTCAGCCTGCGAGGACCTCTCTGCAGCTCTCATAGCCAATAAGAATTTGACAAGGATG
                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                 3;
                                                                                                                                                                                      Length 2158;
    and Marquis, J.P
                                                                                                                                                                                                                 Indels
                                                                                                                                                                                      .
9
                                                                                                                                                                                                                 2;
                                                                         1. .2158
/organism="Homo sapiens"
/mol_type="unassigned DNA"
/db_xref="teaxon:9606"
/noTe="Incyte ID No: 429930CB1"
Walia,N.K., Thangavelu,K., Elliot,V.S.
Nucleic acid-associated proteins
Patent: WO 02072630-A 19 19-SEP-2002;
Incyte Genomics, Inc. (US)
Location/Qualifiers
                                                                                                                                                                                    DB
                                                                                                                                                                                 Score 1681.8;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                   Query Match
Best Local Similarity 99.7%;
Matches 1696; Conservative
                                                                                                                                                                                                                                                                                                            1468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1648
                                                                                                                                                                                                                                                                                                                                                                       1528
                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                    1588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           718
                                                                               source
                 TITLE
JOURNAL
                                                               FEATURES
                                                                                                                                                       ORIGIN
                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                            요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     è
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                    78702
                                                                                                                                                                    78942
                                                                                                                                                                                                                                                                                            78822
                                                                                                                                                                                                                                                                                                                                                       78762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 78642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            78582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    78462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          78342
                                                                                                                                       1368
                                                                                                                                                                                                                                                                                                                          1548
                                                                                                                                                                                                   1428
                                                                                                                                                                                                                                                                                                                                                                                                                                                  1668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1848
                 1248
                                                                                                                                                                                                                                                               1488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Thornton, M., Hafalia, A.J., Lu, D.A., Arvizu, C., Swarnakar, A., Lu, Y., Warren, B.A., Baughn, M.R., Tang, Y.T., Lee, E.A., Yao, M.G., Ramkumar, J., Khan, F.A., Gandhi, A.R., Ding, L., Yue, H., Gietzen, K.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    07-JAN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
               TTGGCGGCGGAGATGGGCTCTGGAATCAAAAATCCTATTTGAGGAGCAGGACCTCCGGAAG
                                                                                                                                                                                                              CTGTTGACCGAGTACGCGTTTTCTGAAAGGAGCTTCCTGGCACTCACCAGCGCGCTTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                              CTGTTGACCGAGTACGCGTTTTCTGAAAGGAGCTTCCTGGCACTCACCAGCGCGCTTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCGCCGCACATCAAGATGGACCTGTTGCAGTGGATCCAAAGCAAAGCTCAGAGCGACGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAGTITATCCAGCAGGCCCTGAGCCACTTCCAGCTGATCGTGGTCAGCAACAITGCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAGTTTATCCAGCAGGCCCTGAGCCACTTCCAGGTGATCGTGGTCAGCAACATTGCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CACTTGTATGGCGCCACCTACAGCGCGGACGGGGAAGACCGCGCGAGGTGCTCCGCAGGA
                                                                         CAACCCAAGCCGGGGCCCCGGGCCTCCAGCCAACCAAGCAGAGGATTGTGCTCC
                                                                                                                                      TTGGCGCCAGATGGGCTCTGGAATCAGAAATCCTATTTGAGGAGCAGGACCTCCGGAAG
                                                                                                                                                                                                 CACGGCCTAGACGGGAAGACGTCTCTGCCTTCCTCAACATGAACATCTTCCAGAAGGAC
                                                                                                                                                                                                                                                              ATCAACTGTGAGAGGTACTACAGCTTCATCCACTTGAGTTTCCAGGAATTCTTTGCAGCT
                                                                                                                                                                                                                                                                               ATCAACTGTGAGAGGTACTACAGCTTCATCCACTTGAGTTTCCAGGAATTCTTTGCAGCT
                                                                                                                                                                                                                                                                                                                         ATGTACTATATCCTGGACGAGGGGGGGGCGCGGGCCCAGGACCAGGACGTGACCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTTGGACTCCTGAACGAGGAGACCACGGGGCCCCTGGAGAAGGACTCTCTGCTGGAAGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTTGGACTCCTGAACGAGGAGCCAGGAGCCACCTGGAGAAGACTCTCTGCTGGAAGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCCACCCTGCAGCAGGGCTCCTTGGAGTTCTTCAGCTGCTTGTACGAGATCCAGGAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAGATGGAGCACATGGTCTCCTCGTTCTGTGTGAGCGCTGCAGGAGCGCCCAGGTGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CACTTGTATGGCGCCACCTACAGCGCGGACGGGAAGACCGCGCGAGGTGCTCCGCAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AX575503 2158 bp 1
Sequence 19 from Patent W002072630.
AX575503. GI:27552095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCGCACACGCTGTTGGTGCAGCT 78319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCGCACACGCTGTTGGTGCAGCT 1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          sapiens (human)
sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ношо
               1189
                                           79121
                                                                         1249
                                                                                                       79061
                                                                                                                                                                                                                              78941
                                                                                                                                                                                                                                                                                                                         1489
                                                                                                                                      1309
                                                                                                                                                                                                                                                                                                                                                      78821
                                                                                                                                                                                                                                                                                                                                                                                      1549
                                                                                                                                                                                                                                                                                                                                                                                                                                                 1609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  78521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1969
                                                                                                                                                                                                 1369
                                                                                                                                                                                                                                                              1429
                                                                                                                                                                                                                                                                                          78881
                                                                                                                                                                                                                                                                                                                                                                                                                  78761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               78701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        78401
                                                                                                                                                                   1006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       78581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             18461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     78341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 13
AX575503
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE
AUTHORS
```

ď

ò

셤

ઠે 셤

ð

유

ò

셤

8

ద

ò

```
CCCACGGCTITGGAGAAGCTCCACCGTCTGGAGCACCCCCAGGCATGTGGAGATCCTG 1008
                                                                                                                             /poctein_id="CAD86517.1"
/db_xefe="G1:29371162"
/db_xefe="G1:29371162"
/translation="MNGSATECSMODLIFSCWPEPSAPLQELIRVPERLLFIIDGFDE
/translation="MNGSATECSMODLIFSCWPEPSAPLQELIRVPERLFILFILDGFDE
/translation="MNGSATECSMODLIFSCWPEPSAPLQFTALEXCHRLLEH
PKRSFHDPQGPWCLCWEEKPFYKKPHNARQAGQVPNYVRDNEPLFTMCFVPLVCWVCTCL
QQQLGGGGLLRQTSRTTTAVYMLYLLSLMQFKPGAPRLQFPPNQRGLCSLAADGLWNQ
KILFERQDLRKHGLDGBNGSAFLNMPTRQKOINCERSFLALTSRFFEGLLNETTRSH
KILFERQDLKHGGGSTARGAGSGSTLQQGSLEFFSCLYFIGEBEFIQQALSHF
QVIVVSPHIKMDLLQWIQSKAQSDGSTLQQGSLEFFSCLYFIGEBEFIQQALSHF
QVIVVSNIASKWEHNANSFCLKRCRSAQVLHLYGATYSADGEDRARCSAGAHTLLVQL
PERTYLLDAYSEHLAAALCTNPNLIELSLYKNALGSRGVKLLCQGLRHPNCKLQOLRR"
                                                                                                                                                                                                                                                                                                                                                                                                                                             Human leucine-rich repeat containing protein, hlrrbml, expressed predominately in bone marrow Patent: WO 02052011-A 1 04-UUL-2002; Bristol-Myers Squibb Company (US) Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   589 TCCATGCTGGCACACAAGGTGATGCTGGACTGGGCGGACGGGAAGCTCTTCCAAGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATGCAAGACCTCATCTTCAGCTGCTGACCCTGAGCGCGCCTCTCCAGGAGCTCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 caagricccaagcgccrcrrrcarcarcacagcrrcaargagcrcaagccrrrr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CACGATCCTCAGGGACCCTGGTGCCTGGGAGGAGAAAACGGCCCACGGAGTTGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTTGATTATCTCTTCTACATCAACTGCAGGAGATGAACCAAGAGTGCCACGGAATGCAGG
                                                                                                                                                                                                                                                                                                                                              AAGGAGCACTCAAACCCCATGCAGGTCCAGCAGCAGCTTCTGGACACAGGCCGGGGGAACAC
                                                                                                                                                                                                                                                                                                                                                                                                    gcgaggaccgraccaggcraagccraccarcaagaragagccrrcrrraagccagagc
                                                                                                                                                                                                                                                                                                     GATCCCCAGGAAACCTACAGGGACTATGTCCGCAGGAAATTCCGGCTCATGGAAGACCGC
                                                                                                                                                                                                                                                                                                                 501;
                                                                                                                                                                                                                                                              6; Length 4931;
                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                  S.
                                                                                                           product"
                                                                                                                                                                                                                                                               DВ
                                                         1. .4931
/organism="Homo sapiens"
/mol_type="unassigned DNA"
/db xref="taxon:9606"
1320. .2669
/note="unamed protein produ
                                                                                                                                                                                                                                                             Query Match
52.0%; Score 1616; D
Best Local Similarity 81.0%; Pred. No. 0;
Matches 2160; Conservative 0; Mismatches
                                                                                                                         codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        169
                                                                                                                                                                                                                                                                                                                                                                          1081
                                                                                                                                                                                                                                                                                                                                                                                                                   1141
                                                                                                                                                                                                                                                                                                                                                                                                                                        469
                                                                                                                                                                                                                                                                                                                                                                                                                                                            1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              709
                                                                                                                                                                                                                                                                                                                                                                                               409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1314
                                                                                                                                                                                                                                                                                                                                 1021
                                                                                                                                                                                                                                                                                                            289
                              JOURNAL
                                                  FEATURES
                                                                                                      CDS
                                                                                                                                                                                                                                               ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8 8 8
                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PAT 29-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                    1497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1677
                                                                                                                                                                                                                                                                                                                                                                                        2847
                                                                                                                                                                                                                                                                                                                                                                                                           1437
                                                                                                                                                                                                                                                                                                                                                                                                                                 2907
                                                                                                                                                                                                                                                                                                                                              2787
                                                                                                        1017
                                                                                                                             2487
                                                                                                                                                   1077
                                                                                                                                                                       2547
                                                                                                                                                                                           1137
                                                                                                                                                                                                                 2607
                                                                                                                                                                                                                                     1197
                                                                                                                                                                                                                                                           2667
                                                                                                                                                                                                                                                                                1257
                                                                                                                                                                                                                                                                                                     2727
                                                                                                                                                                                                                                                                                                                         1317
                                                                                    2427
                                          2367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Eutheria; Prlmates; Catarrhini; Hominidae; Homo.
                                                               957
                       897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGGATGGACCTGAATAAAATGACCCACAGTAGGTTGGCAGCGCTTCGAGTAACAAAACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATCAACCAGACCTTGACCGTTTACCTGACCAACAACGCCCTAGGGGACACACGGTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGACTGCTTTGCAAGCGGCTGAGCCATCCTGGCTGCAAACTCCGAGTCCTCTGGTTATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                TGGCTGGATAGCTGTGGCCTCACAGCCTTGTGAGAATCTTTACTTCACCCTGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                           craegeaaccricegegracriecrecrereraageccricagecareccaagere
                                                                                                                                                                                                                                                                              CAGACCCTGCGGGTTGGGGCATCTGCCGGCTCTGGCCCCTGTGAGGGTCTTTCTGTG
                                                                                                                                                                                                                                                                                                                GTGCTCCAGGCCAACCACAACCTCGGGAGCTGGACTTTCAACGACCTGGGAGAC
                                                                                                                                                                                                                                                                                                                                                          TGGGGCCTGTGGTTGCTGGCTGAGGGGCTGCAACATCCCGGCCTGCAGACTCCAGAAACTG
                                                                                                                             GGAAATGCACTGGAGGATTTTGGGCCTGAGGTTACTATGCCAGGGACTGAGGCACCCAGTC
                                                                                                                                                                       TGCAGACTACGGACTTTGTGGCTGAAGATCTGCCGCCTCACTGCTGCTGCTGTGACGAG
                                                                                                                                                                                     1078 IGCAGACTACGGACTTTGTGGCTGAAGATCTGCCGCCTCACTGCTGCTGCTGCTGCGAG
                                                                                                                                                                                                                 CTGGCCTCAACTCTCAGTGTGAACCAGAGCCTGAGAGCTGGACCTGAGCTGAATGAG
         TGTCAGGAGATGGCTTCTGTGCTCGGCACCAACCCACATCTGGTTGAGTTGGACTGACA
                                                                                                CATCCCCAGTGCAGGCTGCAGATGATTCAGTTGAGGAAGTGTCAGCTGGAGTCCGGGGCT
                                                         linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Feder, J., Ramanathan, C. and Mintier, G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AX684291 4931 bp
Sequence 1 from Patent W002052011.
AX684291
AX684291.1 GI:29371161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TATTIGGACATIGGCIGCIGA 3108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3088
                                                                                                                                                                                                                                                                                                                                                                                                                 1378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1618
                                                                                                                                                                                                                                                                                                                                                                                                                                       2848
                                                                                                                                                                                                                                                                                                                                                                                                                                                           1438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2968
                                                                                                                                                                                                                                                                                     1198
                                                                                                                                                                                                                                                                                                          2668
                                                                                                                                                                                                                                                                                                                               1258
                                                                                                                                                                                                                                                                                                                                                    2728
                                                                                                                                                                                                                                                                                                                                                                                             2788
                                                                                                                                                                                                                      2548
                                                                                                                                                                                                                                           1138
                                                                                                                                                                                                                                                                2608
                                                                                                                                                                              2488
                                                2308
                                                                                          2368
                                                                                                                                    2428
                                                                                                                                                        1018
                            838
                                                                                                              958
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 14
AX684291
LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            상염
                                                                                                                                                                                                                                                                                                                                                                                       දු පු
                                                                                                                                                                                                                                                                                                                                                                                                                                 8 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                 원장
                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                ò
                                                                                                                                                    g
                                                                                                                                                                        ò
                                                                                                                                                                                                                      ò
                                                                                                          g
                                                                                                                                   ò
                            셤
                                               ò
                                                                     유
                                                                                        ò
```

468

528

1140

408

1080

348

4

1586

948

1526

888

1346

648

1406

768

```
Length 202418;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       clone end:T7 '-'
vector sider:ight"
vector sider:ight"
47137 ..57439
/note="assembly_fragment"
57540 ..65296
/note="assembly_fragment
clone_end:SP6
vector sider:left"
vector sider:left"
75977 ..75858
/note="assembly_fragment"
75959 ..82702
/note="assembly_fragment"
75959 ..82702
82803 ..103245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /// 18992
// note="assembly_fragment"
19093. 2770
// note="assembly_fragment"
27811. 3266
// note="assembly_fragment"
32767. 39814
// note="assembly_fragment"
39915. 47036
// note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note="assembly_fragment"
/note="assembly_fragment"
/note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                48.6%; Score 1511;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               note="assembly_fragment"
03346, ,125582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                note="assembly_fragment"
25683. .159885
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5343. .7896
/note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .3722. .16242
'note="assembly_fragment"
                                                                                                                                                                                                                                                                                                             125583
125683
159886
159986
                   32667
32767
39815
39915
47137
47137
57440
57540
65297
65297
75859
82703
                                                                                                                                                                                                                                                                            103246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                             source
                                                                                                                                                                                                                                                                                                                                                                                         FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORIGIN
                                                                                           Antonellis, A. Ayele, K., Benjamin, B., Blakesley, R. W., Boakye, A., Antonellis, A. Ayele, K., Brooks, S., Chu, G., Coleman, H., Engfrard, G.G., Edutan, K., Gupta, J., Haghighi P., Han, J., Hansen, N., Ho, S., L., Hu, P., Hurle, B., Idol, J. R., Madden, M., Maduro, Q. L., Lee-Lin, S.-Q., Legaspi, R., Madden, M., Maduro, Q. L., Maduro, V. B., Margulies, E. H., Masiello, C., Maskeri, B., McDowell, J., Mullikin, J.C., Oeetreicher, J. S., Parasad, A., Puri, O., Reddix-Dugue, M., Rosas, B., Schandler, K., Schueler, M.G., Shah, K., Sison, C., Stantripop, S., Stephen, E., Thomas, J. W., Thomas, P. J., Tsipouri, V., Vogt, J. L., Wetherby, K. D., Young, A. and
                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Platyrrhini; Callitrichidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Green, B.D.

Direct Submission

Direct Submission

Direct Submission

Submitted (13-0CT-2004) NIH Intramural Sequencing Center, 8717

Grovemont Circle, Gaithersburg, MD 20877, USA

On Oct 13, 2004 this sequence version replaced gi:51101019.

Center: NIH Intramural Sequencing Center

Center code: NISC
                                                                                                                                                                                                                                                                                                                                           Outbursence
Green, E.D.
Direct Submission
Submitted (11-AUG-2004) NIH Intramural Sequencing Center, 8717
Grovemont Circle, Gaithersburg, MD 20877, USA
3 (bases 1 to 202418)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Consensus quality: 18671 bases at least Q20 consensus quality: 18671 bases at least Q30 lnsert size: 200000; agarcse-fp lnsert size: 200608; sum-of-contigs Quality coverage: 8.14x in Q20 bases; agarcse-fp Quality coverage: 8.11x in Q20 bases; sum-of-contigs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NOTE: This is a 'working draft' sequence. It currently consists of 19 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2426: contig of 2426 bp in length 2526: gap of unknown length 5342: contig of 2716 bp in length 7842: gap of unknown length 7896: contig of 2554 bp in length 11052: contig of 1856 bp in length 1152: gap of unknown length 1152: gap of unknown length 1152: gap of unknown length 11521: contig of 2469 bp in length 16242: contig of 2521 bp in length 16342: gap of unknown length 16342: contig of 2550 bp in length 18992: contig of 2550 bp in length 18992: contig of 2550 bp in length 18992: contig of 2550 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          unknown length
of 4796 bp in l
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Web site: http://www.nisc.nih.gov
Contact: nisc_zoo@nhgri.nih.gov
Contact: project Information
Center project name: hle
Center clone name: 282108
                                                                                                                                                                                                                                                                                                      NISC Comparative Sequencing Initiative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               contig c
gap of c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           19092: gap of
                                                                    Callithrix.
1 (bases 1 to 202418)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                32666:
                                                                                                                                                                                                                                                                                                                             Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5343
7897
7997
111053
13622
13722
13722
16243
16343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               19093
27771
27871
                                                                                                                                                                                                                                                                                            Green, E.D.
                                                                                                                                                                                                                                                                                                         TITLE
JOURNAL
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                       REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMMENT
```

ATCAGAAAATCCTGTTTGAGGAGCAGGACCTCCGGAGG 136578

Db 136519 CTGGCAGCAGACGGGCTCTGGAA	0y 1369 CACGGCCTAGACGGGGAAGACGT 	Oy 1429 ATCAACTGTGAGGTACTACAG	Qy 1489 ATGTACTATATCCTGGACGACGAGGG 			Db 136819 TTGGGCTGCTGAACGAGGAACAC	Oy 1669 TCGCCGCACATCAAGATGGACCT	Qy 1729 TCCACCTGCAGCAGGGCTCCTT	Db 136939 TCCACCCTGCAGGGGCTCCCT Qy 1789 GAGTTTATCCAGCAGGCCCTGAG		Oy 1849 AAGATGGAGCACATGGTCCTC	Qy 1909 CACTTGTATGGGGCCACCTACAG 	Qy 1969 GCGCACACGCTGTTGGTGCAGCT	Db 137179 ACCCACACGCTGTTGGTGCAGCT	Search completed: February 8, 2005, Job time : 12969 secs							
Best Local Similarity 93.0%; Pred. No. 0; Matches 1583; Conservative 0; Mismatches 120; Indels 0; Gaps 0;	8=8	349 AATGCGCGCCTAGGGAATGTGTCAACCTCAGCCACCGGTACACCCGGCTCCTGCTGGTG 408	135359 AATGCGCCCTCAGGGGAATGTGTCAACCTCCGGTACACCCGGTTCTGCTGCTGGTGGTGTGTGT	135619 AAGGAGCACTCAAACCCCATGCGGGCCCAGCAGCAGCTTCTGGACACGGGGCGGGAACAC 135678 469 GCGAGGACCGTGGGACACCAGGCTAGCCCCATCAAGATAGAGACCCTCTTTGAGCCAGAC 528	135679 GCGAGGACCGTGGGATACCAGACCGCCCTTCAAGATAGAGACCCTCTTTGAGCCCAGAT 135738	529 GAGGAGCGCCCGAGCCACCGCACCGTGGTCATGCAAGGGCGCGGCAGGATAGGCAAG 588		135/99 TUCATGUTGGCTCACAAGGTGATGCTGGACTGGGCGGAGGGGAGG	135859 TITGATTATCTCTTCTACATCAACTGCAGGGGCTGAACCAGAGTGCCGCGGAACGCAGC 135918	709 ATGCAAGACCTCATCTTCAGCTGGCCTGAGCCCAGCGCGCCTCTCCAGGAGCTCATC 768	769 CGAGTTCCCGAGCGCCTCCTTTTCATCATGACGGCTTCGATGAGCTCAAGCCTTCTTTC 828	CACGATCCTCAGGGACCCTGGTGCCTCTGCTGGGAGGAGAACGGCCCCACGGAGCTGCTT	136039 CACGATICETCAGGGACCETGGTGGCTGGGGGGGGGGGGCCCACGGGGGCTGCTC 136098 889 CTTAACAGCTTAATTCGGAAGAAGCTGCTCCCTGAGCTATCTTTGCTCATCACCACACGG 948		949 CCCACGGCTTTGGAGAGGTCCACCGTCTGCAGAGCACCCCAGGCATGTCGAGATCCTG 1008	1009 GGCTTCTCTGAGGCAGAAGGAATACTTCTACAAGTATTTCCACAATGCAGAGCAG 1068 	1069 GCGGGCCAAGTCTTCAATTACGTCAAGGACAACGAGCCTCTCTTCACCATGTGCTTTCGTC 1128	1362/9 GCGGGCCACGTCTTCAACTACGTGAGGGACAACGAGCCTCTTCACCATGTGCGTTCGG 136338	136339 CCCCTGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTG	1189 TTGAGACAGCGCCAGGACCACCACTGCAGTACATGCTCTACCTGCTGAGTCTGATG 1248	1249 CAACCCAAGCCGGGGCCCCGGGCCTCCAGCCCCCACCAGAGGGTTGTGCTCC	1309 TIGGCGCAGAIGGGCTCTGGAAICAGAAAICCTAITTGAGGAGCAGGACCTCCGGAAG 1368
MΣ	충 음	કે ઇ	8 8	음 6	7 A	ò 8	ð	8 8	QQ	යි ර	송 원	કે ક	g ò	qq	& 8	è 8	8	<u> </u>	8 8	දු පු	\$ A	ò

AGCGGGACGGGAAGACCGCGCGAGGTGCTCCGCAGGA 1968 AGCTTCATCCACTTGAGTTTCCAGGAATTCTTTGCAGCT 1488 CTGAAAGGAGTTCCTCGCACTCACCGCGCTTCCTG 1608 CCAGGAGCCACCTGGAGAAGACTCTGCTGGAAGGTC 1668 TGGAGTTCTTCAGCTGCTTGTACGAGATCCAGGAGGAG 1788 GCCACTTCCAGGTGATCGTGGTCAGCAACATTGCCTCC 1848 CGTTCTGTCTGAAGCGCTGCAGGACGCCCAGGTGCTG 1908 r 137201 T 1991

20:14:15

Ipis bade Blank (nsbto)

```
Pebruary 8, 2005, 14:51:26 ; Search time 1504 Seconds
(without alignments)
12233.082 Million cell updates/sec
                                                                                                                                                                               US-10-781-294-23
3108
1 atgctacgaaccgcaggcag.....atttggacattggctgctga 3108
                                                                                                                                                                                                                                                                                                                                                     8780412
GenCore version 5.1.6 . Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                 Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                4390206 seqs, 2959870667 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                             Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                   OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                      IDENTITY NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           N_Geneseq_16Dec04:*

1: geneseqn1980s:*
2: geneseqn1990s:*
3: geneseqn2000s:*
5: geneseqn2001as:*
6: geneseqn2001as:*
7: geneseqn2002bs:*
8: geneseqn2003bs:*
10: geneseqn2003ds:*
11: geneseqn2003ds:*
12: geneseqn2004as:*
                                                                                                                                                                                                                                                                                                                                                                                         Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                 Title:
Perfect score:
Sequence:
                                                                                                                                                                                                                                                            Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Database :
                                                                                                                                                                                                                                                                                                                  Searched:
                                                                                                           Run on:
```

red. No. is the number of results predicted by chance to have a	score greater than or equal to the score of the result being printed,	cion.
chance	result	istribut
cted by	of the	and is derived by analysis of the total score distribution
s predi	e score	total
resulte	to the	of the
mber of	or equal	nalysis
the nur	than c	ed by a
No. is	greate	derive
red.	score	and is

	Description	Ade36416 Human PAA	Adj19338 Human PAN	Aal47129 Pyrin dom	Adp47723 Human Mon	Aal44363 Human PYR	Adf94754 Human PYR	Adj19382 Human PAN	Adp47725 Human Mon	Adm02033 Human cDN	Adp47727 Human Mon	Adc30316 Human nov	Adp47729 Human Mon	Adp47731 Murine Mo	Acd03623 Novel hum	Abs78719 Human cDN	Ach91465 Human gen	Abl59333 Nucleotid	Adm93802 DNA encod	Adm93804 DNA encod	Acd03624 Novel hum
SUMMARIES	āī	ADE36416	ADJ19338	AAL47129	ADP47723	AAL44363	ADF94754	ADJ19382	ADP47725					ADP47731	ACD03623	ABS78719	ACH91465	ABL59333	ADM93802	ADM93804	ACD03624
	Query Match Length DB	3108 6	3108 12	3300 6	3731 12	3186 6	3186 10	3218 12	3563 12	3466 11		3306 10		3102 12	1800 8	2158 6	1704 12	4931 6	1684 12		1683 8
de	Query	100.0	100.0	98.4	97.1	96.5	96.5	94.2	88.8	85.1	79.5	78.8	77.8	0.09	54.9	54.1	54.1	52.0	48.0	44.9	44.9
	Score	3108	3108	3057	3017	2997.8	2997.8	2929	2759	2644.2	2470	2449.4	2417	1864.8	1705.4	1681.8	1680	1616	1491.4	1394.8	1394.8
	Result No.	1	7	e	4	ß	9	7	80	6	10	11	12	13	14	15	c 16	17	18	19	20

Adp47755 Human CAT Adp24013 PRO polyp Adm14329 Human cry Abx93556 Human Dyr Adp47753 Human Dyr Adp47753 Human CAT Adp47753 Human PAA Adf19373 Human Bec Adx20194 Human Bec Adx301973 Human Inf Agx47735 Human inf Adx602055 Human CMP Adx602056 Human CMP Adx602059 Human CMP	S	n PAN6 cDNA. ; antiinflammatory; vasotropic; cerebroprotective; cardiant; tive; anti-HIV; gene therapy; the containing polypeptide; pAN 2-6; pyrin 2;	apoptosis-associated speck-like protein; caspase recruitment domain 2; ASC-2; nuclear factor kappa B activation inhibitor; NB-ARC domain; apoptosis; NFkappaB induction; cytokine processing; apoptosis; Nckine receptor signaling caspase-mediated proteolysis; cytokine receptor signaling caspase-mediated proteolysis; inflammation; cell adhesion; call adhesion; call adhesion; call adhesion; cancer; keratinocyte, hyperplasia; inflammation; cell proliferation; balloon angioplasty; restenosis; smooth muscle cell proliferation; balloon angioplasty; restenosis; lupus; schrojen's syndrome; Crohn's disease; allergy; arthritis; lupus; schrojen's syndrome; Crohn's disease; neroke; heart failure; nucrative colitis; graft versus host disease; stroke; heart failure; neurodegenerative disease; parkinson's disease; Alzheimer's disease; HIV; cancer therapy; PAAD domain family; human; PAN6; gene; ss.				
ADP47755 ADP44013 ADM3149 ADD14323 ADD14323 ADD14323 ADD27909 ADP7753 ADF36451 ADF30451 ADF3040194 ADC20194 ADC30201 ADF70133 AAS68757 ADP47733	ALIGNMENTS	andard; CDNA; 3108 BP. (first entry) and nucleotide binding protein PAN6 immunosuppressive; vulnerary; anti c; antiulcer; dermatological; cereb onian; nootropic; neuroprotective; tivation inhibitor; PAAD domain con cleotide binding protein 2-6; PAN 2	ike protein, m; cytokine caspase-media, vation; cell cancer; ker cancer; ker proliferati oma; inflamm oma; inflamm irsus host dil rsus host dil arkinson's d			: 22	
1114 0 0 111 0 0 0 11 0 0 0 11 0 0 0 11 0 0 0 11 0 0 0 11 0 0 0 1 0 0 0 1 0		310 b bi bi c bi	The property of the property o			5621 1760 367P	
22 23 33 34 44 44 44 44 44 44 44 44 44 44 44		cDNA; 3 it entry) :leotide ssuppress ulcer; 6 ulcer; 6 ulcer; 6 unotropi n inhibite te bindir	tor kaped specific to the signal sign			2001US-00965621 2000US-00671760 2000US-0367367P	
22222255999999999999999999999999999999		standard; 04 (first D and nucl c; immunos gic; antiu activation aucleotide	Seciates fac NFkappa Septor Ninal k Ninal k 1; cell Nooth m Nooth m Nooth secont Nooth secont Secont secont Secont secont Secont secont second	3. 9-A1.			J J C. ZIK A. Z.
88 88 88 88 88 88 88 88 88 88 88 88 88		416 ADE36416 sta ADE36416; 29-JAN-2004 Human PAAD a Cytostatic; antiallergia antiparkins NFKappaB act PAAD and mu	poptosis-a SC-2; nucl SC-2; nucl SC-2; nucl Pytokine re Jun N-text nflammation oplasis; estenosis; estenosis; certritis; lcerative eurodegenes	Homo sapiens US2003077699	4	S-SEP-2001; 6-SEP-2000; 6-SEP-2000;	(REED/) REED J (GODZ/) GODZIK (CHUZ/) CHU Z.
12222222222222222222222222222222222222		200 1444 4 2 H 2. H 2. H 2. H 2. H 2. H 2. H	តិដីគីបីប៉ុន៌កិដ្ឋិតិថា គឺថ	Ħ Ħ	7	0 0 0	222
v		RESULT 1 10 ADBS 6416 110 AAC XX AAC XX XX XX DDT 29-(XX XX CYCC XX X	************	S X &	X & X	R XX	X & & &

us-10-781-294-23.rng

셤 ò 셤 ò a ò 셤 ò

> **B** Ariza

> > ŗ,

Fiorentino

Pawlowski K,

2,

Chu

κ. L

```
Novel isolated PAAD domain containing polypeptide useful for inducing
apoptosis by inhibiting nuclear factor kappa B activation and in gene
                                                            apoptosis by inhibiting nucl
                                        WPI; 2002-471256/50.
PAWLOWSKI K.
FIORENTINO I
ARIZA M E.
STEHLIK C.
                          Godzik A,
                                              P-PSDB; ADE36417.
                               ΰ
                          Reed JC,
Stehlik (
                                                                            Claim 2;
(PAWL/)
(FIOR/)
(ARIZ/)
(STEH/)
```

ò

The invention describes an isolated PAAD domain containing polypeptide comprising 80% identity to the amino acid sequence of PAAD and conclude binding protein (PAN) 2-6, pyprin 2, apoptosis-associated speck cullocation in appeal to acapase recruitment domain (ASC)-2 fully defined in specification, where (I) is biologically active. (I) is useful for identifying a (I)-associated polypeptide, an agent altering that association and agents that modulate PAAD domain mediated inhibtion of nuclear factor kappa B (NFKappaB). A NB-ARC domain polypeptide is useful for identifying an agent that modulates the activity of the NB-ARC domain conficiential process such as apoptosis, NFKappaB induction, cytokine coff (I). (I) or its functional fragments is useful in altering cellular or coff (I). (I) or its functional fragments is useful in altering cellular or coff (I). (I) or its functional fragments is useful in altering cellular or coff (I). (I) or its functional fragments is useful in altering cellular or corported processes. (I) is useful for treating cancer parhologies, creating cancer parhologies, creating cancer parhologies, or biochemical processes. (I) is useful for treating cancer parhologies, creating cancer parhologies, creating cancer parhologies, proliferation in arteries following ballon analyophage (C) proliferation in arteries following ballon analyophage (C) proliferation in arteries following ballon analyophage (C) versus host disease, stroke, heart fallure, neurodegenerative colitis, grath lugus, schrojen's syndrome, Crohn's disease and ulcerative colitis, grath corporation as parkinson's and Alzheimer's disease, human immunodeficiency virus pand. This sequence encodes human PAAD and nucleotide binding protein SEQ ID NO 23; 93pp; English.

240 120 180 180 240 300 300 360 360 120 9 9 GAGGCTCTGGAACTGAAGAAGTTCAAGTTATACCTGGGGACCGGAACAGAGCTGGGAGAA AACAGGAAGGACCTGTGGGAAGAAGAAGAAGAAGAAGAACCTGGTGAGGATCCCCAGGAA AACAGGAAGGACCTGTGGGAGAGAGACACAGAGAGACCTGGTGAGGGATCCCCAGGAA ATGCTACGAACCGCAGGGACGGCCTCTGTCGCCTGTCCACCTACTTGGAAGAACTC ATGCTACGAACCGCAGGCAGGCACCCCTCTGTCGCCTGTCCACCTACTTGGAAGAACTC GGCAAGATCCCCTGGGGAAGCATGGAGAAGGCCGGTCCCCTGGAAATGGCCCAGCTGCTC ATCACCCACTTCGGGCCAGAGGCCTGGAGGTTGGCTCTCAGCACCTTTGAGCGGATA Gaps ö 6; Length 3108; T; 0 U; 0 Other; 0; Indels ВВ 100.0%; Score 3108; 100.0%; Pred. No. 0; ive 0; Mismatches Sequence 3108 BP; 682 A; 883 C; 931 G; 612 Best Local Similarity 100. Matches 3108; Conservative 61 121 181 181 241 301 301 61 121 Query Match

ઠે 셤 ò ద ð 셤 ò g

8 G

ò

deselacidente de la contracta 1441 AGGTACTACAGCTTCCACTTGAGTTTCCAGGAATTCTTTGCAGCTATGTACTATATC 1500 GAGAAGCTCCACCGTCTGCTGGAGCACCCCCAGGCATGTGGAGATCCTGGGCTTCTCTGAG 1020 960 420 480 480 540 540 900 900 999 99 720 720 780 780 840 900 GGGGAAGACGTCTCTGCCTTCCTCAACATCTTCCAGAAGACATCAACTGTGAG TCCAGGACCACCACTGCAGTGTACATGCTCTACCTGCTGAGTCTGATGCAACCCAAGCCG GGGGCCCCGCCCCCCCCCCCACCAGAGGGGGTTGTGCTCCTTGGCGCAGAT GGGCTCTGGAATCAGAAATCCTATTTGAGGAGCAGGACCTCCGGAAGCACGGCCTAGAC ATTOGGAAGAAGCTGCTCCTGAGCTATCTTTGCTCATCACCACGGCCCCACGGCTTTG GCAGAAAGGAAGGAATACTTCTACAAGTATTTCCACAATGCAGAGCAGGCGGGCCAAGTC TTCAATTACGTGAGGGACAACGAGCCTCTTCACCATGTGCTTCGTCCCCCTGGTGTGC CGCCTCCTTTTCATCATCACGGCTTCGATGAGCTCAAGCCTTCTTCCACGGATCCTCAG GGACCCTGGTGCCTCTGCTGGGAGAGAAACGGCCCACGGAGCTGCTTAACAGCTTA GGGGAATGTGTCAACCTCAGCCACCGGTACACCCGGCTCCTGCTGGAGGAGCACTCA AACCCCATGCAGGTCCAGCAGCAGCTTCTGGACACAGGCCGGGGACACGCGAAGACCGTG GGACACCAGGCTAGCCCCATCAAGATAGAGACCCTCTTTGAGCCAGACGAGGAGGACCCCC GAGCCACCGCGCACCGTGGTCATGCAAGGCGCGGCAGGGATAGGCAAGTCCATGCTGGCA CACAAGGTGATGCTGGACTGGGCGGACGGAAGCTCTTCCAAGGCAGATTTGATTATCTC CACAAGGTGATGCTGGACTGGGCGGACGGGAAGCTCTTCCAAGGCAGATTTGATTATCTC TTCTACATCAACTGCAGGGAGATGAACCAGAGTGCCACGGAATGCAGCATGCAAGACCTC ATCTTCAGCTGCTGGCCTGAGCCCAGCGCGCCTCTCCAGGAGCTCATCCGAGTTCCCGAG 1261 1381 721 1021 1081 1141 1141 1201 1201 1261 1321 901 1021 1081 1321 781 781 841 841 901 961 481 541 601 601 661 661 721 361 421 421 481 541 361 엄 셤 à 유 8 g ð 셤 ઠ 원 Š 셤 g à g à 용 à 셤 셤 8 à qq g ð ઠ

Db 2521 CGCCTCACTGCTCGAATGGCTGAACTCCTCAATGTGAACTCTCAGTGTGAACCTGGCTGTTGAG 2640 2581 AGAGAGCTGAACTCAACTCAACTCGGGGACCTTCGGGGTGCTGCTGTTGAG 2640 2581 AGAGAGCTGAACTCAACTCAACTCGGGGACCTTCGGGGTGCTGCTGTTGAG 2640 2641 GGCCTCAGGCCTCGAACTCCACGTGAAGCTCGGGGATGCTGCTGCTGTTGAG 2640 2701 TCTGCCGCTCTGAGGTTTTTCTGTGATGCTTCCAGGCATTCGCTGCTGCTGTGTGA 2760 2701 TCTGCCGCCTGTGAGGTTTTTCTGTGATGCTTCCAGGCATTCCCGGGAGCTT 2760 2701 TCTGCCGCCTGTGAGGTTTTTCTGTGATGCTCCAGGCCACACCTCCGGGAGCTT 2760 2701 TCTGCCGCCTGTGAGGGTTTTTCTGTGATGCTCCAGGCCAACCTCCGGGAGCTT 2760 2701 TCTGCCGCCTGTGAGGGTTTTTCTGTGATGCTCCAGGCCAACCTCCGGGAGCTT 2760 2701 TCTGCCGCCTGTGAGGGTTTTTCTGTGATGCTCCAGGCCAACCTCCGGGAGCTT 2760 2701 TCTGCCGCCTGTGAGGGTTTTTCTGTGATGCTCCAGGCCAACCTCCGGGAGCTT 2760 2701 TCTGCCGCCTGTGAGGGTTTTTCTGTGATGCTCGGGTTGACCTCACACCTCCGGGAGCTT 2760 2701 TCTGCCGCCTGTGAGGGTTTTTCTGTGATGCTTGGTTGGT	RESULT 2 ADJ19338 1D ADJ19338 1D ADJ19338 1D ADJ19338 1D ADJ19338 1D ADJ19338 1D ADJ19338; XX AC ADJ19338; XX DT 20-MAY-2004 (first entry) XX DE Human PAN6 PAAD domain-containing protein full-length cDNA. XX DY 20-MAY-2004 (first entry) XX DE Human PAN6 PAAD domain-containing protein full-length cDNA. XX XX DY Cytostatic; cancer; gene therapy; PAAD domain; human; ss; gene; XX	XX
	GCGCCCTGTGCACCAATCCAAACCTGATAGAGCTGTCTCTGTACCGAAATGCCCTGGGC GCGCCCTGTGCACCAATCCAAACCTGATAGAGCTGTCTCTGTACCGAAATGCCCTGGGC GCGCCCGGGGGGGGGG	

8 X C C C C C C C X 8

```
GCA.CCTACAGGGGGGGGGGAAGA.CGGGGGGGGGGTCCGGGAGGAGGGGCACGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAGGGCTCCTTGGAGTTCTTCAGCTGCTTGTACGAGATCCAGGAGGAGGAGTTTATCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TACGOGITITCIGAAAGAGCITCCIGGCACTCACCAGCCGCTICCIGITIGGACTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAGGCCCTGAGCCACTTCCAGGTGATCGTGGTCAGCAACATTGCCTCCAAGATGGAGCAC
                                                                                                                                                                                                                                                   AGGTACTACAGCTTCATCCACTTGAGTTTCCAGGAATTCTTGCAGCTATGTACTATATC
                                                                                                                                                                                                                                                                                                                                                                                                                                        AACGAGGAGACCAGCACCTGGAGAGAGAGTCTCTGCTGGAAGGTCTCGCCGCACATC
                                                                                                                                                                                                                           GGGGCCCCGCCTCCAGCCCCCAACCAGAGAGGGTTGTGCTCCTTGGCGGCAGAT
                                                                                                                                                                                                                                                                                                         GOGCTCTGGAATCAGAAATCCTATTTGAGGAGCAGGACCTCCGGAAGCACGCCTAGAC
                                                                                                                                                                                                                                                                                                                                                    GGGGAAGACGTCTCTGCCTTCCTCAACATGAACATCTTCCAGAAGGACATCAACTGTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTGGACGAGGGGGGGGGGGCCCAGGCCCAGGACGTGACCAGGCTGTTGACCGAG
GAACCCTGGTGCCTCTGCTGGAGGAGAACGGCCCACGGAGCTGCTTAACAGCTTA
                                            GAGAAGCTCCACCGTCTGCTGGAGCACCCCAGGCATGTGGAGATCCTGGGGCTTCTCTGAG
                                                                                         GCAGAAAGGAAGGAATACTTCTACAAGTATTTCCACAATGCAGAGGAGGGGGGCCAAGTC
                                                                                                                                   GCAGAAAGGAAGGAATACTTCTACAAGTATTTCCACAATGCAGAGCAGGGGGCCAAGTC
                                                                                                                                                               TTCAATTACGTGAGGGACAACCACTCTTCACCATGTGCTTCGTCCCCCTGGTGTGTG
                                                                                                                                                                                                          1681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1921
                                                                                                                                                                                                                                                                                                                                                                 1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                      1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1861
                                                                                                                                                                                                                                                                            1201
                                                                                                                                                                                                                                                                                                                                                                                       1381
                                                                                                                                                                                                                                                                                                                                                                                                          1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1561
                                                                                                                                                                    1081
                                                                                                                                                                                          1081
                                                                                                                                                                                                              1141
                                                                                                                                                                                                                                   1141
                                                                                                                                                                                                                                                       1201
                                                                                                                                                                                                                                                                                                 1261
                                                                                                                                                                                                                                                                                                                                            1321
                                                                                                                                                                                                                                                                                                                                                                                                                                  1441
                                                                                                                          1021
                                                                                                                                              1021
                                                           901
                                                                               961
                                                                                                   961
                                    901
               841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ద
                                                                                                                                                                                                                                                                                                                                                                                P &
                                                                                                                                                                                                                                                                                                                                                                                                                                8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8 & 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              장
원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                            Š
               8 B
                                                     g
                                                                               ò
                                                                                              g
                                                                                                                         à
                                                                                                                                        g
                                                                                                                                                                    ò
                                                                                                                                                                                   g
                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGACCCTGGTGCCTCTGCTGGGAGGAGAAACGGCCCACGGAGCTGCTTCTTAACAGCTTA 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    720
                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     540
                                                                                                                                                                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                                                                                                                                                       360
                                                                                                                                                                                                                                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                          120
                                                                                                                                                                                                                                              120
                                                                                                                                                                                                                                                                    180
                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                 240
                                                                                                                                                                                                                                                                                                                                                        300
                                                                                                                                                                                                                                                                                                                                                                             300
                           The invention relates to a novel isolated nucleic acid molecule encoding a PAAD-containing polypeptide. The polypeptide of the invention demonstrates cycostatic activity and may be useful for preparing a composition for diagnosing or treating diseases associated with the PAAD domain-containing polypeptide, such as cancer, via gene therapy. The current sequence is that of the human PAAD domain-containing protein full-length cDNA of the invention.
                                                                                                                                                                                9
                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATCTTCAGCTGCTGGCCTGGCCCGGCCTCTCCAGGGCTCATCCGGGTTCCCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATCTTCAGCTGCTGCTGAGCCCGAGCGCCCTCTCCAGGAGCTCATCGAGTTCCCGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGCCTCCTTTTCATCATCACGCTTCGATGAGCTCAAGCCTTCTTTCCACGATCCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CACAAGGTGATGCTGGACTGGGCGGACGGGAAGCTCTTCCAAGGCAGATTTGATTATCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTCTACATCAACTGCAGGGAGATGAACCAGGAGTGCCACGGAATGCAGCATGCAAGACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ceccriciriricarcarcacaciricaraaaciricaaraaaciricarricaacaarcaraa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGACACCAGGCTAGCCCCATCAAGATAGAGACCCTCTTGGAGCCCAGACGAGGGCGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAGCCACCGCGCACCGTGTCATGCAAGGCGCGGCAGGATAGGCAAGTCCATGCTGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CACAAGGTGATGCTGGACTGGGCGGACGGGAAGCTCTTCCAAGGCAGATTTGATTATCTC
                                                                                                                                                                                            GAGGCTGTGGAACTGAAGATTCAAGTTATACCTGGGGACCGCGACAGAGCTGGAGAA
                                                                                                                                                                                                                                                                                    GGCAAGATCCCCTGGGGGAAGCATGGAGAAGGCCGGTCCCCTGGAAATGGCCCAGCTGCTC
                                                                                                                                                                                                                                                                                                                               AACAGGAAGGACCTGTGGGAAGAGAAGAAGAGAAGAAGGACCTGGTGAGGATCCCCAGGAA
                                                                                                                                                                                                                                                                                                                                                                      ACCTACAGGGACTATGTCCGCAGGAAATTCCGGCTCATGGAAGACCGCAATGCGCCCTA
                                                                                                                                                                                                                                                                                                                                                                                                              GGGGAATGTGTCAACCTCAGCCACCGGTACACCCGGCTCCTGCTGGAGGAGGACTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGGGAATGTGTCAACCTCAGCCACCGGTACACCCCGGCTCCTGCTGTGAAGGAGCACTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AACCCCATGCAGGTCCAGCAGCATCTGGACACACGGCGGGGACACGCGAGGACCGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAGCCACCGCGCACCGTGGTCATGCAAGGCGCGGCAGGGATAGGCAAGTCCATGCTGGCA
                                                                                                                                                                              ATGCTACGAACCGCAGGGACGGCCTCTGTCGCCTGTCCACCTTGGAAGAACTC
                                                                                                                                                                                                                           GAGGCTGTGGAACTGGAAGTTCAAGTTATACCTGGGGACCGCGACAGAGAA
                                                                                                                                                                                                                                                                                                               ATCACCCACTTCGGGCCAGAGGAGGCCTGGAGGTTGGCTCTCAGCACCTTTGAGCGGATA
                                                                                                                                                                                                                                                                     GGCAAGATCCCCTGGGGAAGCATGGAGAAGGCCGGTCCCCTGGAAATGGCCCAGCTGCTC
                                                                                                                                                             Gaps
                                                                                                                                       3108;
                                                                                                                                                           ö
                                                                                                                  0 Other;
                                                                                                                                                            Indels
                                                                                                                  0 O
                                                                                                                                       12;
                                                                                                                                                             ö
                                                                                                                   Ë
                                                                                                                                       DB
                                                                                                                                    Query Match
Best Local Similarity 100.0%; Pred. No. 0;
Matches 3108; Conservative 0; Mismatches
                                                                                                                  Sequence 3108 BP; 682 A; 883 C; 931 G; 612
         English
         193pp;
          23;
         ID NO
          SEO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              721
                                                                                                                                                                                                      н
                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         481
                                                                                                                                                                                    Н
                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                 361
                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                  61
            Example;
```

g

성 음

셤

ò

g

ò

g

ò

8 8 8

8 8 8 8 8

g 8 g Š g

1320

1200 1200

1140

1080

1080

1020

900 960 960 1380

1980

임

ò

8 8

ò g ò

1680

g

요

8

ò

요

a

ò

g

ò

g ઠે g ઠ 셤 ò 셤

ò

```
The present invention relates the DNA and their encoded proteins, where the proteins contain at least one PYD (pyrin) domain. These can be used to treat diseases associated with impaired intracellular signal transduction, particularly inflammation such as psoriasis, arteriosclerosis, bacterial or viral infections (particularly meningitis and pneumonia), multiple sclerosis, rhoumatoid arthritis, asthma, sarcoidosis, glomerulonephritis and osteoarthritis, and also Alzheimer's and Parkinson's diseases. The present sequence is a coding sequence of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New DNA encoding protein with pyrin domain, useful for treating diseases involving impaired signal transduction, particularly inflammation, also proteins and antibodies.
                                                                                                                                                                                                                                                                             Pyrin domain, PVD domain, antiinflammatory, antiparkinsonian, antiarteriosclerotic; antipsoriatic; antibacterial; virucide; antiarteriosclerotic; antiarthritic; antirheumatic; antiasthmatic; nephrotropic; osteopathic; nootropic; intracellular signal transduction; inflammation; Alzheimer's disease; infection; psoriasis; asthma; arteriosclerosis; multiple sclerosis; rheumatoid arthritis; sarcoidosis; osteoarthritis; glomerulonephritis; gene; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 ATGCTACGAACCGCAGGCAGGGACGGCCTCTCTCCACCTACTTGGAAGAACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 ATGCTACGAACCGCAGGCAGGCACCGCTCTGTCGCCTGTCCACCTACGAAGAACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAGGCTGTGGAACTGAAGAAGTTCAAGTTATACCTGGGGACCGCGACAGAGCTGGGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121 GGCAAGATCCCCTGGGGAAGCATGGAGAAGGCCGGGTCCCCTGGAAATGGCCCAGCTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                 3108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98.4%; Score 3057; DB 6; Length 3300; 100.0%; Pred. No. 0; ive 0; Mismatches 0; Indels 0;
                                                                                                                                                                                                                                                Pyrin domain containing protein NALP3/PY5-hs coding sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 3300 BP; 726 A; 943 C; 979 G; 652 T; 0 U; 0 Other;
                TTGGCAGCGCTTCGAGTAACAAAACCTTATTTTGGACATTGGCTGCTGA
                                      3061 TTGGCAGCGCTTCGAGTAACAAAACCTTATTTGGACATTGGCTGCTGA
                                                                                                                                        BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 5; Fig 1; 116pp; German.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (APOT-) APOTECH RES & DEV LTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        15-NOV-2000; 2000DE-01056687.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     30-OCT-2001; 2001WO-EP012545
                                                                                                                                        DNA; 3300
                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Similarity
Matches 3057; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               J, Martinon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2002-427093/45.
                                                                                                                                        standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   P-PSDB; AAO17857.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200240668-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    the invention
                                                                                                                                                                                                                                                                                                                                                                                                                             Unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    23-MAY-2002
                                                                                                                                        AAL47129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                  3061
                                                                                                                                                                         AAL47129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Techopp
                                                                                                     RESULT 3
                                                                                                                                                             g
                  ò
                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3000
                                                                                                     2100
                                                                                                                                        2100
                                                                                                                                                                           2160
                                                                                                                                                                                                              2160
                                                                                                                                                                                                                                                2220
                                                                                                                                                                                                                                                                                 2220
                                                                                                                                                                                                                                                                                                                    2280
                                                                                                                                                                                                                                                                                                                                                       2280
                                                                                                                                                                                                                                                                                                                                                                                          2340
                                                                                                                                                                                                                                                                                                                                                                                                                             2340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCCACCTACAGGGGGACGGGGAAGACCGCGCGAGGTGCTCCGCAGGAGCGCACACGCTG
                                                   GCGGCCCTGTGCCCAATCCAAACCTGATAGAGCTGTCTCTGTACCGAAATGCCCTGGGC
                                                                                                                                                                                                                                                                                                                                                                                        ATGATGCTGCTTTTGCGAGGCCTGCGGCATCCCCAGTGCAGGCTGCAGATGATTCAGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGGAAGTGTCAGCTGGAGTCCGGGGCTTGTCAGGAGATGGCTTCTGTGCTCGGCACCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTATGCCAGGGACTGAGGCACCCAGTCTGCAGACTACGGACTTTGTGGCTGAAGATCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGCCTCACTGCTGCTGCTGTGACGAGCTGGCCTCAACTCTCAGTGTGAACCAGAGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGAGAGCTGGACCTGAGCCTGAATGAGCTGGGGGGACCTCGGGGGTGCTGCTGTGTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGAGAGCTGGACCTGAGCCTGAATGAGCTGGGGGCCCTCGGGGTGCTGCTGTGTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCTGCCGCCTGTGAGGGTCTTTCTGTGGTGCTCCAGGCCAACCACACACCTCCGGGAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCTGCCGCCTGTGAGGGTCTTTCTGTGGTGCTCCAGGCCAACCACAACCTCCGGGAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGTGAGAATCTTTACTTCACCCTGGGGATCAACCAGACCTTGACGGACCTTTACCTGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AACAACGCCCTAGGGGACACAGGTGTCCGACTGCTTTGCAAGCGGCTGAGCCATCCTGGC
                                                                                                                                                                           AGCCGGGGGGTGAAGCTGCTCTGTCAAGGACTCAGACACCCCCAACTGCAAACTTCAGAAC
                                                                                                                                                                                                AGCCGGGGGGGTGAAGCTGCTCTGTCAAGGACTCAGACACCCCCAACTGCAAACTTCAGAAC
                                                                                                                                                                                                                                                CTGAGGCTGAAGAGGTGCCGCATCTCCAGCTCAGCCTGCGAGGACCTCTGCAGCTCTC
                                                                                                                                                                                                                                                                      CTGAGGCTGAAGAGGTGCCGCATCTCCAGCTCAGCCTGCGAGGACCTCTCTGCAGCTCTC
                                                                                                                                                                                                                                                                                                                    ATAGCCAATAAGAATTTGACAAGGATGGATCTCAGTGGCAACGGCGTTGGATTCCCAGGC
                                                                                                                                                                                                                                                                                                                                        ATAGCCAATAAGAATTTGACAAGGATGGATCTCAGTGGCAACGGCGTTGGATTCCCAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                            Argariccriscradeaccerecearceceargeagecreericcaeargaricaerre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGGAAGTGTCAGCTGGAGTCCGGGGCTTGTCAGGAGATGGCTTCTGTGCTCGGCACCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCACATCTGGTTGAGTTGGACCTGACAGGAAATGCACTGGAGGATTTGGGCCTGAGGTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ccacarcrestresserresacessersasariscacresasarresserresserre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CGCCTCACTGCTGCTGCCTGTGACGAGCTGGCCTCAACTCTCAGTGTGAACCAGAGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGCCTCAGGCATCCCACGTGCAAGCTCCAGACCTGCGGTTGGGCATCTGCCGGCTGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGCCTCAGGCATCCCACGTGCAAGCTCCAGACCCTGCGGTTGGGCATCTGCCGGCTGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CATCCCGCCTGCAGACTCCAGAAACTGTGGCTGGATAGCTGTGGCCTCACAGCCAAGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CATCCCGCCTGCAGACTCCAGAAACTGTGGCTGGATAGCTGTGGCCCTCACAGCCAAGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGCAAACTCCGAGTCCTCTGGTTATTTGGGATGGACCTGAATAAAATGACCCACAGTAGG
                                                                                                     GCGCCCTGTGCACCAATCCAAACCTGATAGAGCTGTCTCTGTACCGAAATGCCCTGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTATGCCAGGGACTGAGGCACCCAGTCTGCAGACTACGGACTTTGTGGCTGAAGATCTGC
                                                                                                     2041
                                                                                                                                        2041
                                                                                                                                                                                                           2101
                                                                                                                                                                                                                                                                                                                    2221
                                                                                                                                                                                                                                                                                                                                                                                                                            2281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3001
                                                                  1981
                                                                                                                                                                           2101
                                                                                                                                                                                                                                              2161
                                                                                                                                                                                                                                                                                 2161
                                                                                                                                                                                                                                                                                                                                                     2221
                                                                                                                                                                                                                                                                                                                                                                                        2281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3001
1921
                                 1981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2581
```

셤 ò 셤

ò

g ઠે 셤 ò 셤 ઠે g 8

ઠે

ö

g

ठ 셤 8 셤 ò 셤

9

9

180

ઠ

```
The invention relates to a novel isolated nucleic acid encoding a Monarch enhancer. (CARD [caspase recruitment domain], transcription enhancer. R [purine] -binding, pyrin, lots of leucine repeats] 11.2, CATERPILER 16.1, CATERPILER 16.2 or CIASI (coldinduced autoinflammatory syndrome 1) polypeptide comprising the amino acids encoded by exon 6 and lacking the amino acids encoded by exon 6 and lacking the amino acids encoded by exon 4 or its fragment. The nucleic acid of the invention demonstrates antiinflammatory and cytostatic activities and may be useful in preparing a composition for treating an inflammatory disease or cancer, possibly via gene therapy. The current sequence is that of the human Monarch 1 (CATERPILLER 19.3) full-length cDNA of the invention which is located on
                                                                                                                                                                                                      New nucleic acid encoding Monarch-1, CATERPILLER 11.2, CATERPILLER 11.3, CATERPILLAR 16.1, CATERPILLER 16.2 or CIASI polypeptide, useful in preparing a composition for treating inflammatory disease or cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          221 ATGCTACGAACCGCAGGCAGGGACGCCTCTGTCGCCTGTCCACCTTGGAAGAACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    281 GAGGCTGTGGAACTGAAGAAGTTATAACCTGGGGACCGCGACAGAGCTGGGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ------GATCCCCAGGAAACCTACAGGGACTATGTCCGCAGGAAATTCCGGGTCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     581 CCAAGAAAGATCCCCAGGAAACCTACAGGGACTATGTCCGCAGGAAATTCCGGCTCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTGCTGGTGAAGGAGCACTCAAACCCCATGCAGGTCCAGCAGCAGCTTCTGGACACACAGGC
                                                                                                    Harton JA, Williams KL, Lich J, O'connor W;
Brickey J, Conti B, Zhang J, Zhu X;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 ATGCTACGAACCGCAGGGACGGCCTCTGTCGCCTGTCCACCTACTTGGAAGAACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAGGCTGTGGAACTGAAGAAGTTCAAGTTATACCTGGGGACCGCGACAGAGGTGGGGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGCAAGATCCCCTGGGGAAGCATGGAGAAGGCCGGTCCCCTGGAAATGGCCCAGCTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          341 GGCAAGATCCCCTGGGGAAGCATGGAGGAAGCCGGTCCCCTGGAAATGGCCCAGCTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATCACCCACTTCGGGCCAGAGGAGGCCTGGAGGTTGGCTCTCAGCACCTTTGAGCGGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 521 GGTGGCCCGTCCTCACTTGGGAACCAGTCAACATGCCTTCTGGAAGTCTCTTGTCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAAGACCGCAATGCGCGCCTAGGGGAATGTGTCAACCTCAGCCACCGGTACACCCGGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        641 GAAGACCGCAATGCGCGCCTAGGGGAATGTGTCAACCTCAGGCACCGGTACACCCGGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTGCTGGTGAAGGAGCACTCAAACCCCATGCAGGTCCAGCAGCAGCTTCTGGACACAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           81; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      chromosome 19q13, in the multiple sclerosis susceptibility region.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match

97.1%; Score 3017; DB 12; Length 3731;
Best Local Similarity 97.5%; Pred. No. 0;
Matches 3108; Conservative 0; Mismatches 0; Indels 81;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 3731 BP; 842 A; 1046 C; 1091 G; 752 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241 AACAGGAAGGACCTGTGGGAGAGAGAGAGAGAGAGAGGACCTGGTGAGG---
                                                                                                                                                                                                                                                                            Claim 4; SEQ ID NO 1; 205pp; English.
 30-APR-2003; 2003WO-US013562.
                                  2002US-0376626P.
                                                                  (UYNC-) UNIV NORTH CAROLINA.
                                                                                                    Linhoff MW,
                                                                                                                                                     WPI; 2004-348215/32.
P-PSDB; ADP47724.
                                                                                                                      Davis B,
                                  30-APR-2002;
                                                                                                   Ting JY,
Moore CB,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                     2460
                                                                                                                                                                                                                                                            2580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2820
                                                                                    2460
                                                                                                                                                                                                                           2580
                                                                                                                                                                                                                                                                                                2640
                                                                                                                                                                                                                                                                                                                                2640
                                                                                                                                                                                                                                                                                                                                                                 2700
                                                                                                                                                                                                                                                                                                                                                                                                 2700
                                                                                                                                                                                                                                                                                                                                                                                                                                     2760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AACAACGCCCTAGGGGACACAGGTGTCCGACTGCTTTGCAAGCGGGTGAGCCATCCTGGC 3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Monarch-1; CATERPILLER 11.2; caspase recruitment domain; CARD, transcription enhancer. R-binding, pyrin, lots of leucine repeat; CATERPILLER 11.3; CATERPILLER 16.2; CIASI; cold-induced autoinflammatory syndrome 1; antiinflammatory; cytostatic; inflammatory disease; cancer; gene therapy; human; gene; ss; purine; CATERPILLER 19.3; chromosome 19q13; multiple sclerosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGCAAACTCCGAGTCCTCTGGTTATTTGGGATGGACCTGAATAAAATGACCCACAGT 3057
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCACATCTGGTTGAGTTGGACCTGACAGGAATGCACTGGAGGAGGATTGGGCCTGAGGGTTA
                                                                                                                                                                                                                                             CGCCTCACTGCTGCTGCTGTGACGAGCTGGCCTCAACTCTCAGTGTGAACCAGAGCCTG
                                                                                                                                                                                                                                                                                                                CTATGCCAGGGACTGAGGCACCCAGTCTGCAGACTACGGACTTTGTGGCTGAAGATCTGC
                                                                                                                                                                                                                                                                                            AGAGAGCTGGACCTGAGCCTGAATGAGCTGGGGGACCTCGGGGTGCTGCTGTGTGAG
                                                                                                                                                                                                                                                                                                                                                                 GGCCTCAGGCATCCCACGTGCAAGCTCCAGACCCTGCGGTTGGGCATCTGCCGGCTGGGC
                                                                                                                                                                                                                                                                                                                                                                                      GGCCTCAGGCATCCCACGTGCAAGCTCCAGACCCTGCGGGTTGGGCATCTGCCGGCTGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCTGCCGCCTGTGAGGGTCTTTCTGTGGTGCTCCAGGCCAACCACAACCTCCGGGAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GACTIGAGITICAACGACCTGGGGACACTGGGGCCTGTGGTTGCTGGCTGAGGGGCTGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CATCCCGCCTGCAGACTCCAGAAACTGTGGCTGGATAGCTGTGGCCTCACAGCCAAGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AACAACGCCCTAGGGGACACAGGTGTCCGACTGCTTTGCAAGCGGCTGAGCCATCCTGGC
                                                2341 AGGAAGTGTCAGCTGGAGTCCGGGGCTTGTCAGGAGATGGCTTCTGTGCTCGGCACCAAC
                                                                                                                                                     CTATGCCAGGGACTGAGGCACCCAGTCTGCAGACTACGGACTTTGTGGCTGAAGATCTGC
                                                                                                                                                                                                                           CGCCTCACTGCTGCTGCCTGTGACGAGCTGGCCTCAACTCTCAGTGTGAACCAGAGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                   TCTGCCGCCTGTGAGGGTCTTTCTGTGGTGCTCCAGGCCAACCACAACCTCCGGGAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CATCCCGCCTGCAGACTCCAGAAACTGTGGCTGGATAGCTGTGGCCTCACAGCCAAGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCACATCTGGTTGAGTTGGACCTGACAGGAAATGCACTGGAGGATTTGGGCCTGAGGTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (CATERPILLER 19.3) full-length cDNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADP47723 standard; cDNA; 3731
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human Monarch-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO2004034093-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              12-AUG-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            22-APR-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3001
                                                                                                                   2401
                                                                                                                                                                                         2461
                                                                                                                                                                                                                          2521
                                                                                                                                                                                                                                                          2521
                                                                                                                                                                                                                                                                                            2581
                                                                                                                                                                                                                                                                                                                               2581
                                                                                                                                                                                                                                                                                                                                                               2641
                                                                                                                                                                                                                                                                                                                                                                                                 2641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2941
                                                                                 2401
                                                                                                                                                     2461
                                                                                                                                                                                                                                                                                                                                                                                                                                  2701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADP47723;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 4
ADP47723
                                                                                                               g
                                                                                                                                                                                                                                                      임
                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                 ઠે
                                                                                                                                                     ઠે
                                                                                                                                                                                    g
                                                                                                                                                                                                                        ઠ
                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ሯ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     요
```

280 120 340 180 400 240 460

9

520

1841
6 1 6 1 6 1 6 1 6 1 6 1 6 1 6 1 6 1 6 1
10

or for

us-10-781-294-23.rng

```
The invention comprises the amino acid and coding sequences of human

PYRIN proteins. The PYRIN protein and DNA sequences of the invention are

useful for modulating and diagnosing stress-related, apoptopic and

inflammatory responses. The PYRIN protein and DNA sequences are useful

for treating: inflammatory disorders and immune system disorders (e.g.

Crohn's disease, reactive arthritis, multiple sclerosis, contact

Carmatitis, psoriasis, graft rejection, allergies, viral infections and

bacterial infections); cancer (e.g. leukaemia); autoimmune disorders

(e.g. systemic lupus erythematosus and arthritis); and neurological

ciseases (e.g. Alzheimer's disease and Parkinson's disease). The PYRIN

protein and DNA sequences may also be used in screening assays, detection

assays (e.g. chromosomal mapping, tissue typing or forensic biology),

predictive medicine (e.g. diagnostic assays, clinical trials and

parmacogenomics) and transcription profilling. The present DNA sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          361 CCAAGAAAAGATCCCCAGGAAACCTACAGGGACTATGTCCGCAGGAAATTCCGGCTCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 ATGCTACGAACCGCAGGCAGGGACGGCCTCTGTCGCCTGTCCACCTACTTGGAAGAACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATGCTACGAACCGCAGGGACGGCCTCTGTCGCCTGTCCACCTACTTGGAAGAACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAGGCTGTGGAACTGAAGTTCAAGTTATACCTGGGGACCGCGACAGAGCTGGGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61 GAGGCTGTGGAACTGAAGAAGTTCAAGTTATACCTGGGGACCGCGACAGACCTGGGAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGCAAGATCCCCTGGGGAAGCATGGAGAAGGCCGGTCCCCTGGAAATGGCCCAGCTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGCAAGATCCCCTGGGGAAGCATGGAGAAGGCCGGTCCCCTGGAAATGGCCCAGCTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATCACCCACTTCGGGCCAGAGGCCTGGAGGTTGGCTCTCAGCACCTTTGAGCGGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181 Arcacccacrircacccacaccacacccreaaccrircaccrcrcaccaccrrraacccara
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AACAGGAAGGACCTGTGGGAGAGAGGACAGAGAGGACCTGGTGAGG------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241 AACAGGAAGGACCTGTGGGAGAGAGACAGAGAGGAGGACCTGGTGAGGGATACCCCACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGTGGCCCGTCCTCACTTGGGAACCAGTCAACATGCCTTCTGGAAGTCTCTCTTGTCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -----GATCCCCAGGAAACCTACAGGACTATGTCCGCAGGAAATTCCGGCTCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAAGACCGCAATGCGCGCCCTAGGGGGAATGTGTCAACCTCAGCCACCGGGTACACCCGGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAAGACCGCAATGCGCGCCTAGGGGAATGTGTCAACCTCAGCCACCGGTACACCGGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTGCTGGTGAAGGAGCACTCAAACCCCATGCAGGTCCAGCAGCAGCTTCTGGACACAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTGCTGGTGAAGGAGCACTCAAACCCCATGCAGGTCCAGCAGCAGCTTCTGGACACACAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CGGGGACACGCGAGGACCGTGGGACACCAGGCTAGCCCCATCAAGATAGAGACCCTCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New PYRIN polypeptides and nucleic acids useful for modulating and diagnosing stress-related, apoptopic and inflammatory responses, or treating inflammatory and immune system disorders, cancers, or neurological diseases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 3186 BP; 701 A; 908 C; 945 G; 632 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 2997.8;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                               encodes a human PYRIN-8 protein
                                                                                                                                                     English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     96.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Similarity 97.3
Matches 3103; Conservative
                                                                                                                                                       8; 167pp;
                     2002-627477/67.
                                   P-PSDB; AAO15590
                                                                                                                                                     Claim 4; Fig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 541
     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                     2799
                                                                                                                                       3100
                                                                                                                                                                        2859
                                                                                                                                                                                                          3160
                                                                                                                                                                                                                                          2919
                                                                                                                                                                                                                                                                                                            2979
                                                                                                                                                                                                                                                                                                                                              3280
                                                                                                                                                                                                                                                                                                                                                                               3039
                                                                                                                                                                                                                                                                                                                                                                                                                 3340
                                                                                                                                                                                                                                                                                                                                                                                                                                                   3099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3400
   GGGGTGCTGCTGCTGTGTGAGGGCCTCAGGCATCCCACGTGCAAGCTCCAGACCCTGCGG 2980
                                                                                                                                                                                                                                                                            3220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        apoptopic response; inflammatory response; inflammatory disorder; immune system disorder; Crohn's disease; multiple sclerosis; cancer; leukaemia; autoimmune disorder; arthritis; neurological disease; Alzheimer's disease; Parkinson's disease; chromosomal mapping; tissue typing; forenaic biology; predictive medicine; pharmacogenomics; transcription profiling; PYRIN-8.
                                                   AACCACAAACCTCCGGGAGCTGGACTTGAGTTTCAACGACCTGGGGAGACTGGGGGCCTGTGG
                                                                                                                                                                                            AAGCGCTGAGCCATCCTGGCTGCAAACTCCGAGTCCTCTGGTTATTTGGGATGGACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                               AATAAAATGACCCACAGTAGGTTGGCAGCGCTTCGAGTAACAAAACCTTATTTGGACATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AATAAAATGACCCACAGTAGGTTGGCAGCCTTCGAGTAACAAAACCTTATTTGGACATT
                                                                                                     AACCACAACCTCCGGGAGCTGGACTTGAGTTTCAACGACCTGGGAGACTGGGGGCCTGTGG
                                                                                                                                                                       TTGCTGGCTGAGGGCTGCAACATCCCGCCTGCAGACTCCAGAAACTGTGGCTGGATAGC
                                                                                                                                                                                                                                          TGTGGCCTCACAGCCAAGGCTTGTGAAATCTTTACTTCACCCTGGGGATCAACCAGACC
                                                                                                                                                                                                                                                               TGTGGCCTCACAGCCTAGTGAGAATCTTTACTTCACCCTGGGGATCAACCAGACC
                                                                                                                                                                                                                                                                                                          TTGACCGACCTTTACCTGACCAACACGCCCTAGGGGACACAGGTGTCCGACTGCTTTGC
                                                                                                                                                                                                                                                                                                                               TTGACCGACCTTTACCTGACCAACAACGCCCTAGGGGGACACACGGTGTCCGACTGCTTTGC
                                                                                                                                                                                                                                                                                                                                                                                                               AAGCGGCTGAGCCATCCTGGCTGCAAACTCCGAGTCCTCTGGTTATTTGGGATGGACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ss; gene therapy; PYRIN; stress-related
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      'product= "Human PYRIN-8 protein #2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAL44363 standard; cDNA; 3186 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Blatcher M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human PYRIN-8 cDNA sequence #2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        31-JAN-2002; 2002WO-US002967.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          31-JAN-2001; 2001US-0265231P.
10-SEP-2001; 2001US-0318645P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (MILL-) MILLENNIUM PHARM INC. (AMHP ) WYETH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      31-OCT-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1. .3186
/*tag= a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      [|||||||||||||
GGCTGCTGA 3409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGCTGCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Wang W,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO200261049-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               dene;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          08-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bertin J,
 2921
                                                                   2981
                                                                                                                                                                                                                                        2860
                                                                                                                                                                                                                                                                                                            2920
                                                                                                                                                                                                                                                                                                                                            3221
                                                                                                                                                                                                                                                                                                                                                                              2980
                                                                                                                                                                                                                                                                                                                                                                                                                                                 3040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAL44363;
                                 2680
                                                                                                                                                                                                       3101
                                                                                                                                                                                                                                                                          3161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3401
                                                                                                     2740
                                                                                                                                       3041
                                                                                                                                                                                                                                                                                                                                                                                                               3281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3341
                                                                                                                                                                        2800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Key
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAL44363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT
셤
                                                                   셤
                                                                                                                                   a
                                                                                                                                                                                                     요
                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                 8
                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
```

3

Gaps

84;

Indels

Length 3186;

DB 6; 5; 9 9 120 120 180 180 240 240 288 300 360

us-10-781-294-23.rng

31	2518 GAGGATTTGGGCCTGAGGTTATATGCCAGGGACCCAGTCTGCAGACTACGG 2577 2518 GAGGATTTGGGCCTGAGGTTATATGCCAGGCTGAGCCTGAGCCTACGG 2577 2500 ACTTTGTGGCTGAAGATCTGCCGCCTCACTGTGACGCTGGCCTCAACT 2559 2500 ACTTTGTGGCTGAAGATCTGCCGCCTCACTGTGACGACTGGCCTCAACT 2637 2518 ACTTTGTGGCTGAAGATCTGCCGCCTCACTGTGACGACTGGCCTCAACT 2637 2520 CTCAGTGTGAACCTGAGAGAGCTGGACCTGAGCCTGAATGAGCTGGGGACCTC 2619 2620 GGGGTGTGTGAACCAGAGAGCTGAGAGCTGAGCCTGAATGAGCTGGGGACCTC 2697 2620 GGGGTGTTGTGAGAGCCTCAGGATCCCAGACCTCAATGAGCTGGGGACCTC 2697 2620 GGGGTGCTGTGTGAGAGGCCTCAGGCATCCCAGACCTCAGACCTGCGG 2679 2620 GGGGTGCTGTGTGTGAGAGGCCTCAGGCATCCCAGACCTCAGACCTGCGG 2759 2680 TTGGGCATCTGCCGCCTCAGGCATCCCAGACCTGCGGG 2757 2680 TTGGGCATCTGCCGCCTCTGCGCCTGTGAGAGCTCCAGACCTGCGGG 2757
8 6 8 6 8 6 8 6 8 6 8 6 8 6 8 6 8 6 8 6	5 8 5 8 5 8 5
	50 20 20 61 40 21 20
3 4 5 8 5 8 5 8 5 8 5 8 5 8 5 8 5 8 5 8 5	

us-10-781-294-23.rng

```
invention.
                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                     289
                                                                                                                                                                                                                                                                                                                                                                                                                                          289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                721
   $$$$$$$$$$$$$$$$$$$$$$
                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            유
                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                2919
                                                                                                                                      2979
                                                                                                                                                                          3039
                                                                                                                                                       3057
                                                                                                                                                                                               3117
                                                                                                                                                                                                                 3099
                                                                                                                                                                                                                                    3177
 TIGGGCATCTGCCGGCTGGGGCTCTGCCGCCTGTGAGGGTCTTTCTGTGGTGCTCCAGGCC 2817
                                                                                                                                                                                                                                                                                                                                                                                                  human; PYRIN; inflammatory disorder; inappropriate apoptosis; inflammatory bowel disease; rheumatoid arthritis; diabetes; multiple sclerosis; Grave's disease; contact dermatitis; psoriasis; graft rejection; asthma; allergy; chronic obstructive pulmonary disease; glomerulonephritis; infection; Alzheimer's disease; Parkhnson's disease; anaemia; ischaemia; screening; chromosomal mapping; tissue typing; forensic biology; pharmacogenomics; predictive medicine; gene; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New nucleic acid molecules and polypeptides (e.g. PYRIN-2 or PYRIN-3) useful for diagnosing, preventing or treating inflammation or disorders associated with inappropriate apoptosis, in chromosomal mapping or in
                             TTGCTGGCTGAGGGCTGCAACATCCCGCCTGCAGACTCCCAGAAACTGTGGCTGGATAGC
                                                                                                         AAGCGGCTGAGCCATCCTGGCTGCAAACTCCGAGTCCTCTGGTTATTTGGGATGACCTG
                                                                                                                                                                                                               AATAAAATGACCCACAGTAGGTTGGCAGCGCTTCGAGTAACAAAACCTTATTTGGACATT
                                                                                                                                                                                                                          AATAAAATGACCCACAGTAGGTTGGCAGCGCTTCGAGTAACAAAACCTTATTTGGACATT
                                                        TTGCTGGCTGAGGGCTGCAACATCCCGCCTGCAGACTCCAGAAACTGTGGCTGGATAGC
                                                                                               TGTGGCCTCACAGCCTTGTGAGAATCTTTACTTCACCCTGGGGATCAACCAGACC
                                                                                                                                    TTGACCGACCTTTACCTGACCAACACGCCCTAGGGGACACAGGTGTCCGACTGCTTTGC
                                                                                                                                                 TTGACCGACCTTTACCTGACCAACAACGCCCTAGGGGGACACAGGTGTCCGACTGCTTTGC
                                                                                                                                                                          AAGCGCCTGAGCCATCCTGGCTGCAAACTCCGAGTCCTCTGGTTATTTGGGATGGACCTG
                                                                                                                                                                                                                                                                                                                         BP.
                                                                                                                                                                                                                                                                                                                                                                                Human PYRIN-8 coding sequence #3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ξ
                                                                                                                                                                                                                                                                                                                       ADF94754 standard; cDNA; 3186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Blatcher
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (MILL-) MILLENNIUM PHARM INC. (AMHP ) WYETH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          17-APR-2002; 2002US-00124498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        14-APR-2003; 2003WO-US011572
                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                     GGCTGCTGA 3108
                                                                                                                                                                                                                                                               GGCTGCTGA 3186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2003-845527/78.
P-PSDB; ADF94755.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Bertin J, Wang W,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       pharmacogenomics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO2003089588-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                              26-FEB-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    30-OCT-2003.
                                                                                                                                                                                                               3040
                   2740
                                      2818
                                                       2800
                                                                          2878
                                                                                                                 2938
                                                                                                                                    2920
                                                                                                                                                       2998
                                                                                                                                                                         2980
                                                                                                                                                                                            3058
                                                                                                                                                                                                                                  3118
                                                                                                                                                                                                                                                     3100
                                                                                                                                                                                                                                                                        3178
                                                                                                                                                                                                                                                                                                                                           ADF94754;
                                                                                                2860
                                                                                                                                                                                                                                                                                                              ADF94754
                                                                                                                                                                                                                                                                                                      RESULT
요
                                     셤
                                                                         셤
                                                                                                               셤
                                                                                                                                   ò
                                                                                                                                                     임
                                                                                                                                                                                          a
                                                                                                                                                                                                                                 쉽
                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                         ઠ
                                                       ઠ
                                                                                              ઠ
                                                                                                                                                                         ઠ
                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                     ઠે
```

```
The invention comprises the amino acid and coding sequences of human proteins. The DNA and protein sequences of the invention are useful in diagnosing, preventing and treating inflammatory disorders a sociated with inappropriate apoptosis, such as: inflammatory bowel disease, rheumatoid arthritis, diabetes, multiple sclerosis, darave's disease, context dermatitis, psoriasis, graft rejection, asthma, allery, chronic obstructive pulmonary disease, glomerulonephritis, infections, Alzheimer's disease, Parkinson's disease, anaemia and ischaemia. The DNA and protein sequences of the invention may also be used in screening assays, chromosomal mapping, tissue typing, forensic biology, pharmacogenomics, predictive medicine, and in monitoring of clinical trials. The present DNA sequence encodes a PYRIN protein of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ~
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 ATGCTACGAACCGCAGGCACGCCCTCTCTCTCCCCTGTCCACCTACTTGGAAGAACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 ATGCTACGAACCGCAGGCACGGCCTCTGTCGCCCTGTCCACTTGGAAGAACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAGGCTGTGGAACTGAAGAAGTTCAAGTTATACCTGGGGACCGCGACAGAGCTGGGGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAGGCTGTGGAACTGAAGAAGTTCAAGTTATACCTGGGGACCGCGACAGAGCTGGGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGCAAGATCCCCTGGGGAAGCATGGAGAAGGCCGGTCCCCTGGAAATGGCCCAGCTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGCAAGATCCCCTGGGGAAGCATGGAGAAGGCCGGTCCCCTGGAAATGGCCCAGCTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATCACCCACTTCGGGCCAGAGGCCTGGAGGTTGGCTCTCAGCACCTTTGAGCGGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATCACCCACTTCGGGCCAGAGGAGGCCTGGAGGTTGGCTCTCAGCACCTTTGAGCGGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Aacaddaaddaccrordddaadadaacadadaadadaaccrogrorddaadaaracccaccr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGTGGCCCGTCCTCACTTGGGAACCAGTCAACATGCCTTCTGGAAGTCTCTCTTGTCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ccaagaaaagarcccaggaaaccracaggacrargrccgcaggaaarrccggcrcarg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAAGACCGCAATGCGCGCCTAGGGGGAATGTGTCAACCTCAGCCACCGGTACACCCGGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAAGACCGCAATGCGCGCCTAGGGGAATGTGTCAACCTCAGCCACCGGTACACCCGGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTGCTGGTGAAGGAGCACTCAAACCCCATGCAGGTCCAGCAGCAGCTTCTGGACACAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTGCTGGTGAAGGAGCACTCAAACCCCATGCAGGTCCAGCAGCAGCTTCTGGACACAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGGGGACACGCGAGGACCGTGGGACACCAGGCTAGCCCCCATCAAGATAGAGACCCTCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGGGGACACGCGAGGACCGTGGGACACCAGGCTAGCCCCATCAAGATAGAGACCCTCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAGCCAGACGAGGGCCCCCGAGCCACCGCGCCGTGGTCATGCAAGGCGCGCAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAGCCAGACGAGGAGCGCCCCGAGCCACCGCGCACGGGTGGTCATGCAAGGCGCGGGGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATAGGCAAGTCCATGCTGGCACACACGTGATGCTGGACTGGGCGGACGGGAAGCTCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 10; Length 3186;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 84;
                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 3186 BP; 701 A; 908 C; 945 G; 632 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AACAGGAAGGACCTGTGGGAGAGAGACAGAGAGGACGTGAGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 2997.8;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity 97.3%;
Matches 3103; Conservative
```

780

Claim 4; SEQ ID NO 17; 199pp; English

6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
100 GANTOCAGCATGCALGATCCACATTCAGCTGCTGCCTGAGCCCAGCCGCTCTCCAG 819 201 GALTCAGCATGCALGATCCACATTCTCAGCTGCTGCTGAGCCCAGCCGCTCTCAGCTCAGCCTCCAGGCTCAGGCTCAGCTCAGCTCAGGCT

ద

ò

셤

윱 à 쉽

ò 쉽

ሯ

```
1017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1077
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1060 GCAGAGCAGGCGGCCAAGTCTTCAATTACGTGAGGGACAACGAGCCTCTCTTCACCATG 1119
                                                                                            297
                                                                                                                                 240
                                                                                                                                                                                                   288
                                                                                                                                                                                                                                                                                                                                         339
                                                                                                                                                                                                                                                                                                                                                                                                           399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        759
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               939
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  999
                               237
                                                               180
                                                                                                                                                                 357
                                                                                                                                                                                                                                    417
                                                                                                                                                                                                                                                                                                                                                                         537
                                                                                                                                                                                                                                                                                                                                                                                                                                             597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        957
                                                                                                                                                                                                                                                                                                      477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAGCTCATCCGAGTTCCCCGAGCGCCTCCTTTTCATCATCGACGACTTCGATGAGCTCCAAG
GAGGCTGTGGAACTGAAGAAGTTCAAGTTATACCTGGGGACCGCGACAGACTGGGAAA
                   GAGGCTGTGGAACTGAAGAAGTTCAAGTTATACCTGGGACCGCGACAGAGAGCTGGGAAA
                                                                   GGCAAGATCCCCTGGGGAAGCATGGAGAAGGCCGGTCCCCTGGAAATGGCCCAGCTGCTC
                                                                                            GECAAGATCCCCTGGGGAAGCATGGAGAAGGCCGGTCCCCTGGAAATGGCCCAGCTGCTC
                                                                                                                                 ATCACCCACTTCGGGCCGGAGGAGGCCTGGGGGTTGGCTCTCAGCACCTTTGAGCGGATA
                                                                                                                                                                    ATCACCCACTTCGGGCCCAGAGGCCCTGGAGGTTGGCTCTCAGCACCTTTGAGCGGATA
                                                                                                                                                                                                                                    AACAGGAAGGACCTGTGGGAGAGAGAGAGAGAGAGGACCTGGTGAGGGATACCCCACCT
                                                                                                                                                                                                                                                                                                        GGTGGCCCGTCCTCACTTGGGAACCAGTCAACATGCCTTCTGGAAGTCTCTCTTGTCACT
                                                                                                                                                                                                                                                                                                                                        -----GATCCCCAGGAAACCTACAGGGACTATGTCCGCAGGAAATTCCGGCTCATG
                                                                                                                                                                                                                                                                                                                                                           CCAAGAAAAGATCCCCAGGAAACCTACAGGGACTATGTCCGCAGGAAATTCCGGCTCATG
                                                                                                                                                                                                                                                                                                                                                                                                           GAAGACCGCAATGCGCCCTAGGGGAATGTGTCAACCTCAGCCACCGGTACACCCGGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                              GAAGACCGCAATGCGCGCCTAGGGGAATGTGTCAACCTCAGCCACCGGTACACCCCGGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTGCTGGTGAAGGAGCACTCAAACCCCATGCAGGTCCAGCAGCAGCTTCTGGACACACAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTGCTGGTGAAGGAGCACTCAAACCCCATGCAGGTCCAGCAGCAGCAGCTTCTGGACACAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGGGGACACGCGAGGACCGTGGGACACCAGGCTAGCCCCATCAAGATAGAGACCCTCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGGGGACACGCGAGGACCGTGGGACACCAGGCTAGCCCCATCAAGATAGAGACCCTTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAGCCAGACGAGGGCGCCCCGAGCCACCGCGCACGTGGTCATGCAAGGCGCGCCAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATAGGCAAGTCCATGCTGGCACACAAGGTGATGCTGGACTGGGCGGACGGGAAGCTCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     778 ATAGGCAAGTCCATGCTGGCACACACAGGTGATGCTGGACTGGGCGGACGGGAAGCTCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAAGGCAGATTTGATTATCTCTTCTACATCAGCTGCAGGGAGATGAACCAGAGTGCCACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAAGGCAGATTTGATTATCTCTTCTACATCAACTGCAGGGGAGATGAACCAGAGTGCCACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAATGCAGCTTGCAAGACCTCATCTTCAGCTGCTGGCCTGAGCCCCAGCGCGCCTCTCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAGCTCATCCGAGTTCCCGAGCGCCTCCTTTTCATCATCGACGCTTCGATGAGCTCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCTTCTTTCCACGATCCTCAGGGACCCTGGTGCCTCTGCTGGGAGGAGAAACGGCCCACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1018 CCTTCTTTCCACGATCCTCAGGGACCCTGGTGCCTCTGCTGGGAGAAAACGGCCCACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAGCTGCTTCTTAACAGCTTAATTCGGAAGAAGCTGCTCCCTGAGCTATCTTTGCTCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAGCTGCTTCTTAACAGCTTAATTCGGAAGAAGCTGCTCCCTGAGCTATCTTTGCTCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  940 ACCACACGCCCCACGGCTTTGGAGAAGCTCCACCGTCTGCTGGAGCACCCCCAGGCATGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCACACGGCCCACGCCTTTGGAGAAGCTCCACCGTCTGCTGGAGGAGCACCCCAGGCATGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAGATCCTGGGCTTCTCTGAGGCAGAAGGAAGGAATACTTCTACAAGTATTTCCACAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAGATCCTGGGCTTCTCTGAGGCAGAAAGGAAGGAATACTTCTACAAGTATTTCCACAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1138
                                                                                                                                                                    298
                                                                                                                                                                                                                                    358
                                                                                                                                                                                                                                                                                                        418
                                                                                                                                                                                                                                                                                                                                                                           478
                                                                                                                                                                                                                                                                                                                                                                                                                                             538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1078
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1198
61
                               178
                                                                 121
                                                                                                 238
                                                                                                                                   181
                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                        289
                                                                                                                                                                                                                                                                                                                                         289
                                                                                                                                                                                                                                                                                                                                                                                                             340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          898
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             958
                                                                                      셤
                                                                                                                        ò
                                                                                                                                                             g
                                                                                                                                                                                                    ò
                                                                                                                                                                                                                             요
                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                               ద
                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                유
                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ⋧
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠ
                        g
                                                               8
                                                                                                                                 3117
                                                                                                 3039
                                                                                                                                                                    3099
                                                                                                                                                                                                    3177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGCTACGAACCGCAGGCAGGGACGCCCTGTCGCCCTGTCCACCTTGGAAGAACTC 177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The invention relates to a novel isolated nucleic acid molecule encoding a PAAD-containing polypeptide. The polypeptide of the invention demonstrates cytostatic activity and may be useful for preparing a composition for diagnosing or treating diseases associated with the PAAD domain-containing polypeptide, such as cancer, via gene therapy. The current sequence is that of the human PAAD domain-containing protein full
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          nucleic acid molecule encoding a PAAD-containing polypeptide, useful preparing a composition for diagnosing or treating e.g., cancer.
TGTGGCCTCACAGCCAAGGCTTGTGAAATCTTTACTTCACCCTGGGGATCAACCAGACC
                                                                                                                   AAGCGGCTGAGCCATCCTGGCTGCAAACTCCGAGTCCTCTGGTTATTTGGGATGGACCTG
                                                                                                                                                                                        AATAAAATGACCCACAGTAGGTTGGCAGCGCTTCGAGTAACAAAACCTTATTTGGACATT
                                               TIGACCGACCTTTACCTGACCAACGCCCTAGGGGACACAGGTGTCCGACTGCTTTGC
                                                                                                 AAGCGGCTGAGCCATCCTGGCTGCAAACTCCGAGTCCTCTGGTTATTTGGGATGGACCTG
                                                                                                                                                                    AATAAAATGACCCACAGTAGGTTGGCAGCGCTTCGAGTAACAAAACCTTATTTGGACATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATGCTACGAACCGCAGGCAGGGACGGCCTCTGTCGCCTGTCCACCTACTTGGAAGAACTC
                                 TTGACCGACCTTTACCTGACCAACACGCCCTAGGGGACACAGGTGTCCGACTGCTTTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cytostatic; cancer; gene therapy; human; PAAD domain; ss;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    81;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 12; Length 3218;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 3218 BP; 691 A; 935 C; 958 G; 634 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human PAN6 PAAD domain-containing protein full-length cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 2929; DB Pred. No. 0; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure; SEQ ID NO 67; 193pp; English.
                                                                                                                                                                                                                                                                                                                                                         H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -length cDNA of the invention.
                                                                                                                                                                                                                                                                                                                                                         ADJ19382 standard; cDNA; 3218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  94.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     04-APR-2002; 2002US-0370538P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   04-APR-2003; 2003US-00407866
                                                                                                                                                                                                                                                                                                                                                                                                                           20-MAY-2004 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                    GGCTGCTGA 3108
                                                                                                                                                                                                                                                                      GGCTGCTGA 3186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2004-061677/06.
P-PSDB; ADJ19383.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Godzik A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (REED/) REED J C. (GODZ/) GODZIK A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US2004002593-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Local Sim.
Matches 3020;
                                                                                                                                                                 3040
                                                                                               2980
                              2920
                                                               2998
                                                                                                                                 3058
                                                                                                                                                                                                   3118
                                                                                                                                                                                                                                    3100
                                                                                                                                                                                                                                                                    3178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Reed JC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PAAD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            for
                                                                                                                                                                                                                                                                                                                                        ADJ19382
                                                                                                                                                                                                                                                                                                                        RESULT
```

셤

ઠ

```
GAAGACCGCAATGCGCGCCTAGGGGAATGTGTCAACCTCAGCCACCGGTACACCGGCTC
                                                      GAAGACCGCAATGCGCGCCTAGGGGAATGTGTCAACCTCAGCCACCGGTACACCCGGCTC
                                                                                                                        crecreareaaeaacacrccaaaccccarecaearccaeaecaecaecaccacaeaec
                                                                                                                                                               CGGGGACACGCGAGGACCGTGGGACACCAGGCTAGCCCCATCAAGATAGAGACCCTCTTT
                                                                                                                                                                                  CGGGGACACGCGAGGACCGTGGGACACCAGGCTAGCCCCCATCAAGATAGAGACCCTCTTT
                                                                                                                                                                                                                                       GAGCCAGACGAGCGCCCCGAGCCACCGCGCACCGTGGTCATGCAAGGCGCGGCAGGG
                                                                                                                                                                                                                                                        GAGCCAGAGGAGGGCCCCGGAGCCACCGCGCACCGTGGTCGTAGCAAGGCGCGGCAGGG
                                                                                                                                                                                                                                                                                                             ATAGGCAAGTCCATGCTGGCACACACAGTGATGCTGGACTGGGCGGACGGGAAGGCTCTTC
                                                                                                                                                                                                                                                                                                                                                                                  CAAGGCAGATTTGATTATCTTCTACATCAACTGCAGGGAGATGAACCAGAGTGCCACG
                                                                                                                                                                                                                                                                                                                                                                                                         CAAGGCAGATTTGATTATCTCTTCTACATCAACTGCAGGGAGATGAACCAGAGTGCCACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAATGCAGCATGCAAGACCTCATCTTCAGCTGCTGGCCTGAGCCCAGCGCGCCTCTCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAATGCAGCATGCAAGACCTCATCTTCAGCTGCTGGCCTGAGCCCCAGCGCGCCCTCTCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAGCTCATCCGAGTTCCCGAGCGCCTCCTTTTCATCATCGACGGCTTCGATGAGCTCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAGCTCATCCGAGTTCCCCGAGCGCCTCCTTTTCATCGACGACTCGATGAGCTCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCTTCTTTCCACGATCCTCAGGGACCCTGGTGCCTCTGCTGGGAGGAGAAACGGCCCACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAGCTGCTTCTTAACAGCTTAATTCGGAAGAAGCTGCTCCCTGAGCTATCTTTGCTCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAGCTGCTTCTTAACAGCTTTAATTCGGAAGAAGCTGCTCCCTGAGCTATCTTTGCTCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCACACGGCCCACGGCTTTGGAGAAGCTCCACCGTCTGCTGGAGCACCCCAGGCATGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAGATCCTGGGCTTCTCTGAGGCAGAAGGAATACTTCTACAAGTATTTCCACAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAGATCCTGGGCTTCTCTGAGGAAGGAAGGAATACTTCTACAAGTATTTCCACAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCAGAGCAGGCCGAGCCTTCAATTACGTGAGGACAACGAGCCTCTTCACCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCAGAGCAGGCGGGCCAAGTCTTCAATTACGTGAGGGACAACGAGCCTCTCTTCACCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGCTTCGTCCCCCTGGTGTGCTGGTGTGTACCTGCCTCCAGCAGCAGCTGGAGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGGGGGCTGTTGAGACACAGGACCACCACCACCAGTGTACATGCTCTACCTGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGGGGGTGTTGAGACAGACGTCCAGGACCACCACTGCAGTGTACATGCTCTACCTGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTGTGCTCCTTGGCGGCAGATGGGCTCTGGAATCAGAAATCCTATTTGAGGAGCAGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTGTGCTCCTTGGCGCAGATGGGCTCTGGAATCCAGAAATCCTATTTGAGGAGCAGGAC
                                                                                          CTGCTGGTGAAGGAGCACTCAAACCCCATGCAGGTCCAGCAGCAGCTTCTGGACACAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1061
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1300
                                                      641
                                                                                                                            701
                                                                                                                                                                                                                                                                                                             580
                                                                                                                                                                                                                                                                                                                                                881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1661
                      340
                                                                                          400
                                                                                                                                                                 460
                                                                                                                                                                                                   761
                                                                                                                                                                                                                                       520
                                                                                                                                                                                                                                                                         821
                                                                                                                                                                                                                                                                                                                                                                                  640
                                                                                                                                                                                                                                                                                                                                                                                                                      941
                                                                                                                                                                                                                                                                                                                                                                                                                                                          700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1180
                                                                                                                  원
                                                                                                                                                                                               g
                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠ
                                             셤
                                                                                      à
                                                                                                                                                            ઠે
                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The invention relates to a novel isolated nucleic acid encoding a Monarch enhancer, R(parine) binding, pyrin, lots of leucine repeats) 11.2, CATERPILLER 11.3, CATERPILLER 11.3, CATERPILLER 11.3, CATERPILLER 16.1, CATERPILLER 16.2, CATERPILLER 16.2, CATERPILLER 16.2, CATERPILLER 16.2, CATERPILLER 16.2, CATERPILLER 16.2, CATERPILLER 16.3, CATERPILLER 16.4, CATERPILLER 16.4, CATERPILLER 16.5, CATERPILLER 16.5, CATERPILLER 16.5, CATERPILLER 16.5, CATERPILLER 16.5, CATERPILLER 16.7, CATERPILLER 16.7, CATERPILLER 16.7, CATERPILLER 16.7, CATERPILLER 19.3) isoform II conA of the invention which is located on chromosome 19q13, in the multiple sclerosis susceptibility region.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     581 CCAAGAAAAGATCCCCAGGAAACCTACAGGGACTATGTCCGCAGGAAATTCCGGCTCATG 640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                              New nucleic acid encoding Monarch-1, CATERPILLER 11.2, CATERPILLER 11.3, CATERPILLAR 16.1, CATERPILLER 16.2 or CIAS1 polypeptide, useful in preparing a composition for treating inflammatory disease or cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATCACCCACTTCGGGCCAGAGGCCTGGAGGTTGGCTCTCAGCACCTTTGAGCGGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATGCTACGAACCGCAGGCAGGACGCCTCTGTCGCCTGTCCACCTACTTGGAAGAACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAGGCTGTGGAACTGAAGTTCAAGTTATACCTGGGGACCGCGACAGAGCTGGGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAGGCTGTGGAACTGAAGATCAAGTTATACCTGGGGACCGCGACAGAGCTGGGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATCACCCACTTCGGGCCAGAGGAGGCCTGGAGGTTGGCTCTCAGCACCTTTGAGCGGGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATGCTACGAACCGCAGGCAGGGACGGCCTCTGTCGCCTGTCCACCTACTTGGAAGAACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGCAAGATCCCCTGGGGAAGCATGGAGAAAGCCCGGTCCCCTGGAAATGGCCCAGCTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGCAAGATCCCCTGGGGAAGCATGGAGAAGGCCGGTCCCCTGGAATGGCCCCAGCTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AACAGGAAGGACCTGTGGGAGAGGACGAGAGAGAGCACCTGGTGAGG-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGTGGCCCGTCCTCACTTGGGAACCAGTCAACATGCCTTCTGGAAGTCTCTTGTCACT
                                                                                                                                                                                                                                                                         3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
inflammatory disease; cancer; gene therapy; human; gene; ss; purine;
CATERPILLER 19.3; chromosome 19q13; multiple sclerosis; isoform II.
                                                                                                                                                                                                                                                                           connor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        81;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 12; Length 3563;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 3563 BP; 805 A; 992 C; 1050 G; 716 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                         s KL, Lich J, O'
Zhang J, Zhu X;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Indels
                                                                                                                                                                                                                                                                       , Williams
Conti B, Z
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 88.8%; Score 2759; D. 97.2%; Pred. No. 0; ive 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 4; SEQ ID NO 3; 205pp; English.
                                                                                                                                                                                                                                                                           JA,
                                                                                                                                                                                                                                                                                          Brickey J,
                                                                                                                                                                                                                                                                           Harton
                                                                                                                                                                                                 30-APR-2002; 2002US-0376626P.
                                                                                                                                                              30-APR-2003; 2003WO-US013562
                                                                                                                                                                                                                                     (UYNC-) UNIV NORTH CAROLINA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity Address 2850; Conservative
                                                                                                                                                                                                                                                                       Linhoff MW,
Davis B, E
                                                                                                                                                                                                                                                                                                                            WPI; 2004-348215/32.
P-PSDB; ADP47726.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                      WO2004034093-A2
                                                      Homo sapiens.
                                                                                                                            22-APR-2004
                                                                                                                                                                                                                                                                       Ting JY, I
Moore CB,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
```

1060

819

759

1000

519

700 459 760 579 880 639 940 699

820

1180

879

1240

939

1300

666

1480

1239

1179

1420

1360

1540

8

8 8 8 8 8

ઠે

g

ઠે

g

ઠે

a

ઠે

1299

1600

1359

```
Sequence 3466 BP; 780 A; 985 C; 1005 G; 696 T;
                                                                                                                                   RESULT 9
ADM02033
                                                                                                                                              g y
                                           g
                                                         δ
                                                                    유
                                                                                ò
                                                                                          셤
                                                                                                       ð
          ò
                                                                                                                                                                                                                                                                                                                                                                    2439
                                                                                                                                                                                                                                                                                                                       2319
                                                                                                                                                                                                                                                                                                                                  2620
                                                                                                                                                                                                                                                                                                                                             2379
                                                                                                                                                                                                                                                                                                                                                        2680
                                                                                                                                                                                                                                                                                                                                                                               derirchenderegeaceaecaecaearengerigaeriggaerigaeaaaaaaaaaaaa 2740
                                                                                                                                                                                                                                                                                                                                                                                          2499
                                                                                                                                                                                                                                                                                                                                                                                                               2500 ACTITIGIGGCIGAAGAICIGCCGCCICACIGCIGCIGCCIGIGACGAGCIGGCCICAACI 2559
                                                                                                                                                                                                                             2079
                                                                                                                                                                                                                                                    2139
                                                                                                                                                                                                                                                                          2199
                                                                                                                                                                                                                                                                                     2500
                                                                                                                                                                                                                                                                                                2259
                                                                                                                                                                                 1959
                                                                                                                                                                                                       2019
                                                                                                                                                                                                                  2320
                                                                                                                                                                                                                                        2380
                                                                                                                                                                     2200
                                                                                                                                                                                            2260
                                                                                                                                    1839
                                                                                                                                                          1899
                    1539
                                          1599
                                                     1900
                                                                 1659
                                                                            1960
                                                                                       1719
                                                                                                  2020
                                                                                                              1779
                                                                                                                         2080
                                                                                                                                                                                                                                                                                                                                                    GAGGATTTGGGCCTGAGGTTACTATGCCAGGGACTGAGGCACCCAGTCTGCAGACTACGG
                                                                                                                                                                                                                                                                                                                                                                                                    GAGGATTTGGGGCCTGAGGTTACTATGCCAGGGACTGAGGCACCCAGTCTGCAGACTACGG
                                                                                                                                                                                                                                                                                                AGGCTGCAGATGATTCAGTTGAGGAAGTGTCAGCTGGAGTCCGGGGCTTGTCAGGAGATG
                                                                                                                                                                                                                                                                                                                                                                    AACGGCGTTGGATTCCCAGGCATGATGCTGCTTTGCGAGGGCCTGCGGGCATCCCCAGTGC
                                                                                                                                                                                                                                                                                                                              CTGTACCGAAATGCCCTGGGCAGCCGGGGGTGAAGCTGCTCTGTCAAGGACTCAAGACAC
                                                                                                                                                                                                                                                                          CCCAACTGCAAACTTCAGAACCTGAGGCTGAAGGGGGCGCGCATCTCCAGCTCAGCCTGC
                                                                                                                                                                                                                                                                                   TCCGCAGGAGCGCACACGCTGTTGGTGCAGCTCAGACCAGAGGACCGTTCTGCTGGAC
                                                                                                                                                                                                             GCCTACAGTGAACATCTGGCAGCGGCCCTGTGCACCAATCCAAACCTGATAGAGCTGTCT
                                                                                       TGGAAGGTCTCGCCGCACATCAAGATGGACCTGTTGCAGTGGAATCCAAAGCAAAGCTCAG
                                                                                               AGCGACGGCTCCACCTGCAGGCTCCTTGGAGTTCTTCAGCTGCTTGTACGAGATC
                                                                                                                     CAGGAGGAGGAGTTTATCCAGCAGGCCTGAGCCACTTCCAGGTGATCGTGGTCAGCAAC
                                                                                                                                           ATTGCCTCCAAGATGGAGCACATGGTCTCCTTCTTGTCTGAAGCGCTGCAGGAGCGCC
                                                                                                                                                                GTGACCAGGGTGTTGACCGGGTTTTCTGAAAGGAGCTTCCTGGCACTCACCAGC
                                                                       CGCTTCCTGTTTGGACTCCTGAACGAGGAGCCAGCAGCCACCTGGAGAAGAGTCTCTGC
CAGAAGGACATCAACTGTGAGAGGGTACTACAGCTTCATCCA
                                                                                                                                                                                                                                                                                                                                     2561
                                                                                                                                                                                                                                                                                                                                                                       2380
                                                                                                                                                                                                                                                                                                                                                                                             2440
                                                                                                                                                                                                                                                                                                                                                                                                        2741
                                                                                                                                                                                                                                                                                                                                                            2621
                                                                                                                                                                                                                                                                                                                          2260
                                                                                                                                                                                                                                                                                                                                                 2320
                                                                                                                                                                                    1900
                                                                                                                                                                                                          1960
                                                                                                                                                                                                                     2261
                                                                                                                                                                                                                                2020
                                                                                                                                                                                                                                           2321
                                                                                                                                                                                                                                                      2080
                                                                                                                                                                                                                                                                 2381
                                                                                                                                                                                                                                                                             2140
                                                                                                                                                                                                                                                                                         2441
                                                                                                                                                                                                                                                                                                   2200
                                                                                                                                                                                                                                                                                                               2501
                                                                                                                                                                                                                                                                                                                                                                                  2681
                                                                                                                                                  2081
                                                                                                                                                                                               2201
                                                        1841
                                                                                                                1720
                                                                                                                           2021
                                                                                                                                       1780
                                                                                                                                                             1840
                                             1540
                                                                               1901
                                                                                          1660
                                                                                                     1961
                       1480
                                                                   1600
 1420
            1721
                                 1781
                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                          рp
                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                         8 8 8
                                                                                                                                                                                                                                         원
장
원
                                                                                                                                                                                           g
                                                                                                   셤
                                                                                                               δ
                                                                                                                          qq
                                                                                                                                      ò
                                                                                                                                               셤
                                                                                                                                                            ò
                                                                                                                                                                      요
                                                                                                                                                                                   ò
                                                        요
                                                                             g
                                                                                          ò
                                g
                                             ò
                                                                    ò
           셤
 ò
                       ò
```

```
2980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2739
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2799
                                                                                                                                     2619
                                                                                                                                                                                                                                                                                                    2679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The invention relates to a novel human polynucleotide and the encoded polypeptide. A polynucleotide of the invention may have a use in gene therapy. An oligonucleotide of the invention ADMOS102-ADMO6773 is useful as a primer for synthesizing the polynucleotide or as a probe for detecting the polynucleotide. The polynucleotides ADMO1316-ADMO1758 are useful in gene therapy, for developing a diagnostic marker or medicines for regulating their expression and activity, or as a target of gene therapy, their expression and activity, or as a target of gene therapy. The proteins ADMO1929-ADMO6201 encoded by the polynucleotides are useful as pharmaceutical agents. The present sequence represents a cDNA sequence of the invention.
                                                                                                                                                                                                                2920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ĥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ishii S;
R, Tamechika
                                                                                                                                                                                                                                                                                                                                                     AACCACAACCTCCGGGAGCTGGACTTGAAGTTTCAACGACCTGGGAGACTGGGGCCTGTGG
CTCAGTGTGAACCAGAGCCTGAGAGCTGGACCTGAGCCTGAATGAGCTGGGGGACCTC
                                                                                                                                                                                 GGGGTGCTGCTGTGAGGGCCTCAGGCATCCCACGTGCAAGCTCCAGGACCTTGCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         rresecuricrescrisescricrescererensas as a receptorare de la reconstante del reconstante de la reconstan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTGCTGGCTGAGGGGTGCAACATCCCGCCTGCAGACTCCAGAACTGTGG 2850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New polynucleotides and polypeptides are useful in gene therapy, developing a diagnostic marker or medicines for regulating their expression and activity, or as a target of gene therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gene therapy; diagnostic marker; pharmaceutical.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Otsuki T, Wakamatsu A, Sato H,
Hio Y, Otsuka K, Nagai K, Irie
Otsuka M, Nagahari K, Masuho Y;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human cDNA of the invention SEQ ID NO:718.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 1; SEQ ID NO 718; 305pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (REAS-) RES ASSOC BIOTECHNOLOGY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       12-APR-2002; 2002EP-0008400.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  22-MAR-2002; 2002JP-00137785.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADM02033 standard; cDNA; 3466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Yamamoto J, Isono Y,
Seki N, Yoshikawa T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sugiyama T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2003-723558/69.
P-PSDB; ADM04476.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ss; gene; human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EP1347046-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           24-SEP-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20-MAY-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Isogai T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADM02033;
                                                                                                                                                      2560
                                                                                                                                                                                                                                                                                                                               2620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2981
                                                                                                                                                                                                                                           2861
                                                                                                                                                                                                                                                                                                                                                                                                               2921
                                                                           2801
```

Other;

0 0 0

```
GGCTGCTGA 3159
                                                                                                                                                                WO2004034093-A2.
                                                                                                                                                  Homo sapiens.
                                                                 12-AUG-2004
                                                                                                                                                                               22-APR-2004.
                                                                                                                                                                                                                                      Ting JY, I
                                                    ADP47727;
3151
                       RESULT 10
                              ADP47727
                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                2919
                                                                                                                                                                                                                                                                                                                                                                                                                                            2979
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3150
                                                                                                                                                                                                                                                                                                                                                                                                                                                         TIGACCGACCITIACCTGACCAACAACGCCCTAGGGGACACAGGGGTGTCCGACTGCTTTGC 3030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAGCGGCTGAGCCATCCTGGCTGCAAACTCCGAGTCCTCTGGTTATTTGGGATGGACCTG 3039
                                                                                                                                                                                                                                                                                                                                                                                                                             2970
                                                                                                                                                                                                                                                                              2841
                                                                                                                                                                                                                                                                                                                        2739
                                                                                                                                                                                                                                  2559
                                                                                                                                                                                                                                                 2781
                                                                                                                                                                                                                                                               CTCAGTGTGAACCAGAGCCTGAGAGCTGGACCTGAGCCTGAATGAGCTGGGGGACCTC 2619
                                                                                                                                                                                                                                                                                                        2842 dederecriecrierierenenenenenenenenenenenenenenenen 2899
                                                                                                               2319
                                                                                                                                                                         2439
                                                                                                                                                                                                     2499
                         2139
                                       2361
                                                      2199
                                                                   2421
                                                                                  2259
                                                                                                2481
                                                                                                                              2541
                                                                                                                                            2379
                                                                                                                                                          2601
                                                                                                                                                                                      2661
                                                                                                                                                                                                                    2721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AATAAAATGACCCACACTAGGTTGGCAGCGCTTCGAGTAACAAAACCTTATTTGGACATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3031 AAGCGGCTGAGCCATCCTGGCTGCAAACTCCGAGTCCTCTGGTTATTTGGGATGGACCTG
                                                                                                                                                                                                                                                                       GGGGTGCTGCTGTGTGAGGGCCTCAGGCATCCCACGTGCAAGCTCCAGACCTTGCGG
                                                                                                                                                                                                                                                                                                                        2680 ITGGGCAICTGCCGGCTGTGCCGCCTGTGAGGGTCTTTCTGTGGTGCTCCAGGCC
                                                                                                                                                                                                                                                                                                                                                     2740 AACCACAACCTCCGGGAGCTGGACTTGAGTTTCAACGACCTGGGAGACTGGGGCCTGTGG
                                                                                                                                                                                                                                                                                                                                                                                  2800 TIGCIGGCIGAGGGCIGCAACAICCCGCCIGCAGAACICCAGAAACIGIGGCIGGAIAGC
                                                                                                                                                                                                                                                                                                                                                                                                               TGTGGCCTCACAGCCAAGGCTTGTGAGAATCTTTACTTCACCCTGGGGATCAACCAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                         TTGACCGACCTTTACCTGACCAACAACGCCCTAGGGGACACAGGTGTCCGACTGCTTTGC
                                                                                                                                                                                                                AACGGCGTTGGATTCCCCAGGCATGATGCTGCTTTGCGAGGGCCTGCGGCATCCCCCAGTGC
                                                                                                                             AACGGCGTTGGAATTCCCAGGCATGATGCTGCTTTGCGAGGGCCTGCGGCATCCCCAATGC
                                                                                                                                            AGGCTGCAGATGATTGAGGAAGTGTCAGCTGGAGTCCGGGGCTTGTCAGGAGATG
                                                                                                                                                    2542 AGGCTGCAGATGATTCAGTTGAGGAAGTGTCAGCTGGAGTCCGGGGCTTGTCAGAGATG
                                                                                                                                                                        GCTTCTGTGCTCGGCACCAACCCACATCTGGTTGGACCTGACAGGAAATGCACTG
                                                                                                                                                                                  2440 GAGGATTTGGGCCTGAGGTTACTATGCCAGGGACTGAGGCACCCCAGTCTGCAGACTACGG
                                                                                                                                                                                                                                  ACTITIGIGGCIGAAGAICTGCCGCCTCACTGCTGCTGTGACGAGCTGGCCTCAACT
                                                                                                                                                                                                                                          CCCAACTGCAAACTTCAGAACCTGAGGCTGAGGGGGCCGCATCTCCAGCTCAGCTGC
                                                              CTGTACCGAAATGCCCTGGGCAGCCGGGGGTGAAGCTGCTCTGTCAAGGACTCAGACAC
                                 GGCTGCTGA 3108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3091
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3100
                                                                                                                                                                                                                                                                                                                                                                                                                                                2920
                                                                                                                                                                                                                                                                                                                                                                                                                                 2911
                                                                                                                                                                                                                                                                                                                                                                                                                                                              2971
                                                                                                                                                                                                                                                    2722
                                                                                                                                                                                                                                                                   2560
                                                                                                                                                                                                                                                                                  2782
                                                                                                                                                                                                                                                                                               2620
                                                                                                                                                                                                                                                                                                                                           2900
                                                                                                                                                                                                                                                                                                                                                                        2900
                                                                                                                                                                                                                                                                                                                                                                                                     2900
                                                                                                                                                                                                                                                                                                                                                                                                                    2860
                                                                                                                                                                                                                                      2500
                                          2302
                                                                                      2200
                                                                                                                   2260
                                                                                                                                                2320
                                                                                                                                                                             2380
                                                         2140
                                                                                                                                 2482
              2242
                            2080
                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                8 &
                                                                                                                                                                                                                                                                                                                                                                                                                              Д
                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                          8 6
                                                                                                                                                                                                                                                                                                                          8 6
                                                                                                                                                                                                                                                                                                                                                   ∂
                                                                                                                                                           g
                                                                                                                                                                           ò
                                                                                                                                                                                          g
                                                                                                                                                                                                        ò
                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                               ò
                                                                      g
                                                                                                   요
                                                                                                                 ò
                                                                                                                               g
                                                                                                                                                ò
                                                                                     ò
                            ò
                                           유
                                                          ò
```

```
The invention relates to a novel isolated nucleic acid encoding a Monarch-
1, CATERPILLER (CARD [caspase recruitment domain], transcription
enhancer, R (purine)-binding, pyrin, lots of leucinne repeats) 11.2,
CATERPILLER 11.3, CATERPILLER 16.1, CATERPILLER 16.2 or CIASI (cold-
induced autoinflammatory syndrome i) polypeptide comprising the amino
acids encoded by exon 6 and lacking the amino acids encoded by exon 4 or
its fragment. The nucleic acid of the invention demonstrates
antiinflammatory and cytostatic activities and may be useful in preparing
a composition for treating an inflammatory disease or cancer, possibly
via gene therapy. The current sequence is that of the human Monarch-
ican composition for multiple sequence is that of the human Monarch-
ican encoded the multiple sclerosis susceptibility region.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121 GGCAAGATCCCCTGGGGAAGCATGGAGAAGGCCGGTCCCTGGAAATGGCCCAGCTGCTC 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CATERPILLER 11.3,
e, useful in
                                                                                                                                                                                                                                                  MONATCH-1; CATERPILLER 11.2; caspase recruitment domain; CARD, transcription enhancer, R-binding, pyrin, lots of leucine repeat; CATERPILLER 11.3; CATERPILLER 16.2; CIAS1; CATERPILLER 06.1; CIAS1; CATERPILLER 16.2; CIAS1; cald-induced autoinflammatory syndrome 1; antiinflammatory; cytostatic; inflammatory disease; cancer; gene therapy; human; gene; ss; purine; CATERPILLER 19.3; chromosome 19q13; multiple sclerosis; isoform III.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       221 AIGCTACGAACCGCAGGCAGGGAGGCCTCTGTCGCCTGTCCACCTACTTGGAAGAACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 ATGCTACGAACCGCAGGCAGGGACGCCTCTGTCGCCTGTCCACCTTGGAAGAACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New nucleic acid encoding Monarch-1, CATERPILLER 11.2, CATERPILLER CATERPILLER 16.1, CATERPILLER 16.2 or CIASI polypeptide, useful in preparing a composition for treating inflammatory disease or cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                connor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         87;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 2470; DB 12; Length 3395;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 3395 BP; 786 A; 946 C; 980 G; 683 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Harton JA, Williams KL, Lich J, O'
ickey J, Conti B, Zhang J, Zhu X;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Mismatches 65; Indels
                                                                                                                                                                                       Human Monarch-1 (CATERPILLER 19.3) isoform III cDNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 4; SEQ ID NO 5; 205pp; English.
BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Brickey J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity 94.5%;
Matches 2616; Conservative
   ADP47727 standard; cDNA; 3395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            30-APR-2003; 2003WO-US013562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       30-APR-2002; 2002US-0376626P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (UYNC-) UNIV NORTH CAROLINA
                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Linhoff MW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Davis B,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2004-348215/32.
P-PSDB; ADP47728.
```

```
New polynucleotide and polypeptide useful for diagnosing, preventing or
treating conditions such as neurodegenerative diseases, anemias, platelet
                                                                                2439
                                                                                                                               2440 GAGGATITICGGCCTGAGGTTACTATGCCAGGGACTGAGGCACCCAGTCTGCAGACTACGG 2499
                                                                                                                                                        2800
                                                                                                                                                                                2553
                                                                                                                                                                                                        2860
                                                                                                                                                                                                                                                     rzcaccriggicarcaaccaccrigaccaacirraccrigaccaacaacaacciragg 2920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human; diagnostic; drug screening; forensics; gene mapping; biodiversity assessment; Parkinson's disease; Alzheimer's disease; neurodegenerative diseases; anaemia; platelet disorder; wound; burns; ulcers; osteoporosis; autoimmune diseases; cancer; molecular weight marker; food supplement; antiparkinsonian; nootropic; neuroprotective; antianaemic; antioogulant; thrombolytic; vulnerary; antiulcer; osteopathic; immunosuppressive; antiinflammatory; cytostatic; gene therapy; chromosome 19; gene; ss.
                                                                                                                                                                                ACTTIGIGGCIGAAGAI-----CIGCCGCCICACTGCTGCTGCCIGTGACGAGCTGGCC
                                                                                                                                                                                                 2801 ACTITGIGGCIGGGGGGGGGGGGCGCGAGGCTIGGGAAICTITAC
                                                                                                                                                                                                                               TCAACTCTCAGTGTGAACCAGAGCCTGAGAGCTGGACCTGAGCCTGAATGAGCTGGGG
                                                                                                                                                                                                                                                                               GACCTCGGGGGTGCTGTGTGTGAGGGCCTCAGGCATCCCACGTGCAAGCTCCAGAACC
                                                                                                                                                                                                                                                                                              AGGCTGCAGATGATTCAGTTGAGGAAGTGTCAGCTGGAGTCCGGGGCTTGTCAGGAGATG
                                                  2380 GCTTCTGTGCTCGGCACCAACCCACATCTGGTTGAGTTGGACCTGACAGGAAATGCACTG
                                                                                                      Wehrman T;
Weng G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Wang J,
Wang Z, V
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               φ,
,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Tang TY, Zhang J, Ren F, Xue AJ, Zhao Zhou P, Ghosh M, Wang D, Ma Y, Asundi Haley-Vicente D, Drmanac RT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human novel cDNA sequence, SEQ ID NO:398.
                                                                                                                                                                                                                                                                                                                                                                                                                        ₽.
                                                                                                                                                                                                                                                                                                                                                                                                                        ADC30316 standard; cDNA; 3306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          24-SEP-2002; 2002WO-US030474.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 24-SEP-2001; 2001US-0324631P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                     CTGCGGTT 2681
                                                                                                                                                                                                                                                                                                                                                            2981 CTCTGGTT 2988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2003-371981/35.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (HYSE-) HYSEQ INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             P-PSDB; ADC31287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         18-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10-APR-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Tang TY,
Zhou P, C
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADC30316;
                                                                                                                                                                                        2500
                                                                                                                                                                                                                                                                                       2614
                                                                                                                                                                                                                                                                                                               2921
                                                                                                                                                                                                                                                                                                                                      2674
                                                                                                                                                                                                                                       2554
                                                                                                                                                                                                                                                                2861
                  2561
                                         2320
                                                                                                                 2681
                                                                                                                                                                2741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ношо
                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                        à
                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                       ò
                                                                                                              g
                                                                                                                                                                임
                                                                                                                                         ò
                셤
                                          ò
                                                                 요
                                                                                        ò
```

CCATGCTGGCACACAAGGTGATGCTGGACTGGGCGGACGGGAAGCTCTTCCAAGGCAGAT 798 ccardcriddcacacacadadardcriddacridddcadaddaaadcricrirccaaddar TIGATTATICTCTTCTACATCAACTGCAGGAGATGAACCAGAGTGCCACGGAATGCAGCA

AGGAGGCCCCGAGCCACCGCGCACCGTGGTCATGCAAGGCGCGGCAGGGTAGGAAGT

530

ò

g

290

В à Db ò

650 828

셤

797

cgaggaccgroopacaccacgccrocarcaagaragagacccrorrragagccagacg

410

음 ò g ઠે

470 678

349 557 409 617 469 677 529 737

1; Indels 174; Gaps

Query Match 78.8%; Score 2449.4; DB 10; Best Local Similarity 93.8%; Pred. No. 0; Matches 2644; Conservative 0; Mismatches 1; I.

Length 3306;

290 ATCCCAGGAAACCTACAGGACTATGTCCGCAGGAAATTCCGGCTCATGGAAGACCGCA ATGCGCGCCTAGGGGAATGTGTCAACCTCAGCCACCGGTACACCCGGGTCCTGCTGGTGA AGGAGCACTCAAACCCCATGCAGGTCCAGCAGCATCTGGACACAAGGCGGGGACACG

498 350

g 8

ઠ

TGCAAGACCTCATCTTCAGCTGCTGGCCTGAGCCCAGCGCGCCTCTCCAGGAGCTCATCC 769

```
The invention relates to 971 novel human CDNA sequences (ADC29919-CC ADC30889) and the polypeptides they encode (ADC3080-ADC31860). The invention also relates to mucleic acid sequences over 95% identical with invention also relates to mucleic acid sequences over 95% identical with cover to an obays. The invention additionally encompasses expression the novel human cDNAs. The invention and invention; an antibody against a polypeptide of the invention; an antibody against a polypeptide of the invention; an enchod of detecting or recombinant production of the invention; an enchod of detecting or polyunclectides or polypeptides of the invention. The invention further discloses methods of peventing, treating or antibodies of peventing, treating or antibodies for carrying out the methods of the antibodies for carrying out the methods of the invention or activity of the polymelectide and/or polypeptides for invention; methods for the identification of compounds that modulate the antibodies of the invention or activity of the polymelectide and/or polypeptide; and of ADC33821. And the polymelectides and/or polypeptides of the invention or activity of the polymelectides and/or polypeptides of the invention useful in diagnostics. The mucleic acides and polypeptides of the invention are identification of mutations responsible for genetic disorders or other consenses of traits, for assessing biodiversity, and in producing many other types of traits, for assessing biodiversity, and in an and other neurodegenerative disease, anaemia, platelet disease and other neurodegenerative diseases, anaemia, platelet disease or disorders, wounds, burns, ulcers, osteoporosis, antoimmune diseases or cancer. The nucleic acide may also be used as hybridiatisation probes or cancer. The nucleic acide may also be used as hybridiatisation probes or cancer. The nucleic acide may also be used as hybridiatisation probes or cancer. The nucleic acide may also be used as hybridiatisation probes or cancer. The nucleic acide may also be used as hybridia
   or
disorders, wounds, burns, ulcers, osteoporosis, autoimmune diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 3306 BP; 718 A; 958 C; 939 G; 691 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ftp.wipo.int/pub/published_pct_sequences.
                                                                                           SEQ ID NO 398; 1185pp; English.
                                                                                                    Claim 1;
                                                   cancer.
```

us-10-781-294-23.rng

```
The invention relates to a novel isolated nucleic acid encoding a Monarch-1, CATERPILLER (CARD [caspase recruitment domain], transcription enhancer, R(purine)-binding, pyrin, lots of leucine repeats) 11.2, CATERPILLER 11.3, CATERPILLER 16.1, CATERPILLER 16.2 or CIAS1 (coldinated autoinflammatory syndrome 1) polypeptide comprising the amino acids encoded by exon 6 and lacking the amino acids encoded by exon 6 and lacking the amino acids encoded by exon 7 its fragment. The nucleic acid of the invention demonstrates antiinflammatory and cytostatic activities and may be useful in preparing a composition for treating an inflammatory disease or cancer, possibly via gene therapy. The current sequence is that of the human Monarch-1 (CATERPILLER 19.3) isoform IV obtA of the invention which is located on chromosome 19913, in the multiple sclerosis susceptibility region.
                                                                                                                          3108
                                                                                                                                         New nucleic acid encoding Monarch-1, CATERPILLER 11.2, CATERPILLER 11.3, CATERPILLAR 16.1, CATERPILLER 16.2 or CIAS1 polypeptide, useful in preparing a composition for treating inflammatory disease or cancer.
                                                                                                                                                                                                                                                                                                                                                                                Monarch-1; CATERPILLER 11.2; caspase recruitment domain; CARD, transcription enhancer, R-binding, pyrin, lots of leucine repeat; CATERPILLER 11.3; CATERPILLER 16.1; CATERPILLER 16.5; CIAS1; cold-induced autoinflammatory syndrome 1; antiinflammatory; cytostatic; inflammatory disease; cancer; gene therapy; human; gene; 88; purine; CATERPILLER 19.3; chromosome 19q13; multiple sclerosis; isoform IV.
                                                       GCCATCCTGGCTGCAAACTCCGAGTCCTGGTTATTTGGGATGGACCTGAATAAAATGA
         CCCACAGAGAGAGAGAGAGTTCGAGTAACAAAACCTTATTTGGACATTGGCTGCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               connor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Harton JA, Williams KL, Lich J, O'
Brickey J, Conti B, Zhang J, Zhu X;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 3221 BP; 749 A; 891 C; 936 G; 645 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                   Monarch-1 (CATERPILLER 19.3) isoform IV cDNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 4; SEQ ID NO 7; 205pp; English
                                                                                                                                                                                                                                                     ADP47729 standard; cDNA; 3221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30-APR-2002; 2002US-0376626P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30-APR-2003; 2003WO-US013562.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (UYNC-) UNIV NORTH CAROLINA.
                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Linhoff MW,
Davis B,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2004-348215/32.
P-PSDB; ADP47730.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO2004034093-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                          12-AUG-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ting JY, I
Moore CB,
2930
                                2964
                                                                 2990
                                                                                                 3024
                                                                                                                                   3050
                                                                                                                                                                                                                                                                                         ADP47729
                                                                                                                                                                                                                        RESULT 12
                                                                                                                                                                                                                                                                       ò
 ò
                            g
                                                                  ò
                                                                                            셤
```

Gaps

81;

Query Match

77.8%; Score 2417; DB 12; Length 3221;
Best Local Similarity 96.3%; Pred. No. 0;
Matches 2508; Conservative 0; Mismatches 0; Indels 81;

```
gagcigciictiiaacagciiaaiicggaagaagcigcicccigagciaictiigcicaic 1240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1060
                                                                                                                                                                                                                                                                                                                                                                                                                    11.80
                                                                                                                                                                                                                                                                                                                                666
                                                                                                                                                                                                                                                                                                                                                                              819
                                                                                                                                                                                                                                                       820
                                                                                                                                                                                                                                                                                                                         669
                                                                                                                                                                          640
                                                                                                                                                                                       399
                                                                                                                                                                                                   700
                                                                                                                                                                                                                 459
                                                                                                                                                                                                                             760
                                                                                                                                                                                                                                           519
                                                                                                                                                                                                                                                                     579
                                                                                                                                                                                                                                                                                 880
                                                                                                                                                                                                                                                                                               639
                                                                                                                                                                                                                                                                                                           940
                                                                                           460
                                                                                                                                                             339
                                                                               240
                                                                                                        288
                                                                                                                      520
                                                                                                                                   288
                                                                                                                                               580
                         120
                                       340
                                                    180
                                                                400
            280
9
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Accacacococacogorrragadaagorccococorocagocacocococococos
                                                                                                                                                                                                                                                                                                       GAGCTCATCCGAGTTCCCGAGCGCCTCCTTTTCATCATCGACGGCTTCGATGAGCTCAAG
                                                                                                                                                                                                                                                                                                                                                                                      CCTTCTTTCCACGATCCTCAGGGACCCTGGTGCTGGGAGGAGGAGAACGGCCCACG
                                                                                                                                                                                                                                                                                                                                                                                                               GAGCTGCTTCTTAACAGCTTAATTCGGAAGAAGCTGCTCCCTGAGCTATCTTTGCTCATC
                                                                                                                                                                                                                                                                    GGTGGCCCGTCCTCACTTGGGAACCAGTCAACATGCCTTCTGGAAGTCTCTCTTGTCACT
                                                                                                                                                                   ATAGGCAAGTCCATGCTGGCACACAAGGTGATGCTGGACTGGGCGGACGGGAAGCTCTTC
                                                                                                                                                                                                                                                                                                                         CAAGGCAGATTTGATTATCTTCTACATCAACTGCAGGGAGATGAACCAGAGTGCCACG
                                                                                                                                                            ------GATCCCCAGGAAACCTACAGGGACTATGTCCGCAGGAAATTCCGGCTCATG
                                                                                                                                                                                             641 GAAGACCGCAATGCGCGCCTAGGGGAATGTGTCAACCTCAGCCACCGGTACACCCCGGTCTC
                                                                                                                                                                                                                 CTGCTGGTGAAGGAGCACTCAAACCCCATGCAGGTCCAGCAGCAGCTTCTGGACACAGGC
                                                                                                                                                                                                                                           CGGGGACACGCGAGGACCGGCACACCAGGCTAGCCCCATCAAGATAGAGACCCTTTT
                                                    GGCAAGATCCCCTGGGAAGCATGGAGAAGGCCGGTCCCCTGGAAATGGCCCAGCTGCTC
                                                                              ATCACCCACTTCGGGGCCGAGGGCCTGGAGGTTGGCTCTCAGCACCTTTGAGCGGATA
                                                                                     AACAGGAAGGACCTGTGGGAGAGAGACAGAGAGAGAGCTGGTGAGG
                                                                                                               GAGGCTGTGGAACTGAAGATTCAAGTTATACCTGGGACCGCGACAGAGAGAAA
                                  820
                                                                                                                                                                                                                                                                                                                                                                                                                                       880
                                                                                                                                                                                                                                                                                                                                                                                                                                                    1181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                940
                                                                                                                                                                                                                                                                                                                                                                                                1061
                                                                                                                                                                                                                                                                                                                                                                                                                         1121
                                                                                                                                                                                                                                                                         520
                                                                                                                                                                                                                                                                                      821
                                                                                                                                                                                                                                                                                                                                                                     1001
                                                                                                                                                                                                                                                                                                                                                                                   760
                                                                                                                                                                                                                                                                                                    580
                                                                                                                                                                                                                                                                                                                             640
                                                                                                                                                                                                                                                                                                                                           941
                                                                                                                                                                                                                                                                                                                                                        700
                                                                                                                                                                                                                                                460
                                                                                                                                                                                                                                                            761
                                                                                   181
                                                                                                             241
                                                                                                                          461
                                                                                                                                                    521
                                                                                                                                                                              581
                                                                                                                                                                                            340
                                                                                                                                                                                                                     400
                                                                                               401
                                                                                                                                       289
                                                                                                                                                                 289
                                           281
                                                        121
                                                                     341
                              61
                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                d
                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                      셤
                                                                                                                                                                                                                     Š
                                                                  셤
                                                                                           QQ
                                                                                                        ò
                                                                                                                       a
                                                                                                                                       ò
                                                                                                                                                 g
                                                                                                                                                                 ò
                                                                                                                                                                            셤
                                                                                                                                                                                            Š
                                          g
                                                                                   ઠે
              g
                           õ
                                                    8
```

Db 2381 CTGTACCGAAATGCCCTGGGGGGGGTGAAGCTCTGTCTAGGACTCAGACAC 2440 Cy 2140 CCCAACTGCAAACTTCAGAACTTGAGGTGAAGGGTCTGTCT	RESULT 13 ADP47731 standard, DNA; 3102 BP. XX AC ADP47731; XX Murine Monarch-1 (CATERPILLER 19.3) predicted DNA. XX Wonarch-1; CATERPILLER 11.2; caspase recruitment domain; XX Wonarch-1; CATERPILLER 11.3; CATERPILLER 16.2; CIAS1; XX CATERPILLER 11.3; CATERPILLER 16.2; CIAS1; XX CATERPILLER 19.3. XX Mus sp. XX	CATERPILLAR 16.1, CATERPILLER 16.2 or CIASI polypeptide, useful in preparing a composition for treating inflammatory disease or cancer. Example 2, SEQ ID NO 9; 205pp; English.
1000 GAGATCCTGGGCTTCTCTGAGGCAGAAAGGAATACTTCTACAAGTATTTCCACAAT 1059	1480 TITTGCAGCTATGTACTATATCCTGGACGAGGAGGAGGCCCGGACCCAGACCAGACC 1539 1781 TTTGCAGCTATGTACTATATCCTGGACGAGGAGGAGGCCCGGACCCAGACCAGACCAGAC 1540 GTGACCAGGCTGTTGACCGATACGAGGAGGAGGAGGCCGGAGCCCCAGACCAGCAC 1600 GTGACCAGGCTGTTGACCGATACGAGTTTTCTGAAAGGAGCTTCCTGGCACTCACCAGC 1900 1600 GTGACCAGGCTGTTGGACTCCTGAACGAGGAGCCACTCGGAGAACACTCACCAGC 1900 1601 GTGACCAGGCTGTTTGGACTCCTGAACGAGGACCACTCGGAACACTCACCAGC 1900 1601 GTGACCAGGCTGTTTGGACTCCTGAACGAGAACCAGGAGCCACTCGGAAGACTCTCTGC 1659 1901 GTGACCAGGCTGTTTGGACTCCTGAACGAGAACCAGGAGCCACTCGGAAGACTCTCTGC 1659 1901 GGAAGGTCTCGCCGCACATCAAGATGGACCTGTTGCAGTGATCCAAAGCAAACCAGGAACTCTGC 1739 1700 AGCAACGACCACCTCAACAAGATGGACCTCTTTGCAGTGATCCAAAGCAAACCAAGCAAACCAAGCAAACCAAACAAA	2020 GCCTACAGTGAACATCTGGCAGCGGCCCTGTGCACCCAATCCAAACCTGATAGAGCTGTCT 2079

The invention relates to a novel isolated nucleic acid encoding a Monarch-1, CATERPILLER (GARD [Cappase recruitment domain), transcription enhancer, R(purine)-binding, pyrin, lots of leucine repeats) 11.2, CATERPILLER 11.3, CATERPILLER 16.1, CATERPILLER 16.2 or CIAS1 (Coldinduced autoinflammatory syndrome 1) polypeptide comprising the amino acids encoded by exon 6 and lacking the amino acids encoded by exon 4 or its fragment. The nucleic acid of the invention demonstrates antinflammatory and cytostatic activities and may be useful in preparing antiinflammatory and cytostatic activities and may be useful in preparing via gene therapy. The current sequence is that of the murine Monarch-1 (CATERPILLER 19.3) predicted DNA of the invention. Monarch %

q

ઠે

g à g ð g ઠે g ò

ઠે

540 582 600 642 9 702 720 762 780 822 840 ä 480 522 420 462 240 288 342 402 120 120 180 GACAAATTCCCTGGGGACGAATGGAGGCTGGTCCTCTGGAAATGGCTCAGCTGATG 240 300 9 9 CTCATCCGAGTTCCCGAGCGCCTCCTTTCATCATCGACGGCTTCGATGAGCCTCAAGCCT TGCAGCATGCAAGACCTCATCTTCAGCTGCTGGCCTTGAGCCCAAGGCGCTCTCCAGGAG ggcagartricgartcrictricacriccaccesesasaccacasaccacces GACCGCAATGCACGATTAGGCGAATGTGTGAACCTGAGCAATCGTTACACTCGGCTTCTC GGACACGCGAGGACACCAGGCTAGCCCCATCAAGATAGAGACCCTTTTGAG GGCAAGTCCATGCTGGCACACAAGGTGATGCTGGACTGGGCGGACGGGAAGCTCTTCCAA GACCGCAATGCGCGCCTAGGGGAATGTGTCAACCTCAGCCACCGGTACACCCGGCTCCTG CTGGTGAAGGAGCACTCAAACCCCATGCAGGTCCAGCAGCAGCTTCTGGACACAGGCCGG chachadadachchchadtcchachchdachchdadartrichadargrada ATGCTACGAACCGCAGGCAACGGCCTCTGTCGCCTGTCCACCTACTTGGAAGAACTC GAGGCTGTGGAACTGAAGTTCAAGTTATACCTGGGGACCGCGACAGAGCTGGGAAA GOCAAGATCCCCTGGGGAAGCATGGAGAAGGCCGGTCCCCTGGAAATGGCCCAGCTGCTC ATCACCCACTTCGGGCCAGAGGCCTGGAGGTTGGCTCTCAGCACCTTTGAGCGGATA graccicacaradedaacaadaadecrredecrredecrereacacerricadaadarr 241 AACAGGAAGGACTGTGGGAGAGAGACAGAGAGAGGACCTGGTGAGG-----241 CACAGGAAGCTGTGGGAGGAGGACGACGAGGAGAAAACCTGGTGAGGGGTAAGGAGGG -----GATCCCCAGGAAACCTACAGGGACTATGTCCGCAGGAAATTCCGGCTCATGGAA Argrideceretacadecadedargeceretarceacreretaceraceregaagaaere Gaps Length 3102; 42; Sequence 3102 BP; 750 A; 786 C; 872 G; 694 T; 0 U; 0 Other; Score 1864.8; DB 12; Lengt Pred. No. 0; 0; Mismatches 717; Indels 0 60.0%; Conservative Similarity Best Local Simi Matches 2367; 361 403 421 463 481 523 541 583 601 643 661 703 721 763 343 181 181 289 н 61 121 121 61 Query Match 원 8 8 8 \$ A ò δ

<u>ک</u> ۾

g ò g ò Q

셤 ò g ð

ઠે

g Q

상 원

8 B 8

≿ <i>4</i>	823 TCTTTCCACGATCCTCAGGGACCCTGGTGCCTCTGCTGGGAGGAGAAACGGCCCACGGAG 882	AG 882 AA 900
	883 CTGCTTCTTAACAGCTTAATTCGGAAGAAGCTGCTCCCTGAGCTATCTTTGCTCAT	CC 942
ą	901 GTCCTCCTCGGAAGTCTGATTCGGAGGTTGCTTCTGCCCCAGGICICICTCIGGTATCTA	000 000
ያ ያ	943 ACACGGCCCACGGCTTTGGAGAAGCTCCACCGTCTGCTGGAGCACCCCAGGCATGTTGT	#G 1020
λά	1003 ATCCTGGGCTTCTCTGAGGCAGAAAGGAATACTTCTACAGTATTTCCACAA'	3CA 1062
q	1021 ATCCTGGGCTTCTCCGAGGAAGCTAGGAAGGAATATTTCTACAGATATTTCCACAA	ACT 1080
à á	1063 GAGCAGGCCCAAGTCTTCAATTACGTGAGGACAACGAGCTCTTCTTCACAT 1063 GAGCAGGCCCAAGTCTTCAATTACGTGAGGACAACAAGCAGCCCCTCTTTACCAT	rgc 1122
3 &	1123 TTCGTCCCCTGGTGTGCTGGTGTGTGTACCTGCCTCCAGCAGCAGCAGGAGGG	3GG 1182
qq	1141 TTTGTTCCCATGGTGTCTCGGGTGGTCTGCCTGCCTAAAGCAGCAGCTGGAAAG	3GG 1200
λ	1183 GGGCTGTTGAGACAGACGTCCAGGACCACCACTGCAGTGTACATGCTCTACCTGCT	AGT 1242
Dp	1201 GAGCTITTAAGACAAAACACCTAGGACCACCACAGCTGTTTATATGTTCTACCTTCT	AGC 1260
λō	1243 CTGATGCAACCCAAGCGGGGCCCCGGGCCTCCAGCCCCACCAACAGAGGTTC	TTG 1302
Db		rh
δý		71 1
qq	1321 GTCTCTGCTGCAGAGGCCTCTGGAATCAGAAGATTCTATTTGATGAACAGGA	CTT 1380
δ	1363 CGGAAGCACGGCCTAGACGGGGAAGACGTCTCTGCCTTCCTCAACATGAACATCTT	CAG 1422
qq	1381 GGGAAACACGGCCTAGATGGAGCAGATGTGTCCACTTTCCTCAACGTGAACATATT	CAG 1440
δλ	1423 AAGGACATCAACTGTQAGAGGTACTACAGCTTCATCCACTTGAGTTTCCAGGAATI	TTT 1482
QQ	1441 AAGGGTATCAAATGTGAGAAATTCTACAGCTTCATCCACCTGAGTTTCCAGGAATI	TTC 1500
λŏ	1483 GCAGCTATGTACTATATCTCGCACGAGGGGAGGGCGGGGCAGGCCCAGACCAGG	GTG 1542
Db	1501 GCAGCCATGTACTGTGCACTGAATGGCAGAGAGGC	GTG 1539
à	1543 ACCAGGCTGTTGACCGAGTACGCGTTTTCTGAAAGGAGCTTCCTGGCACTCACCAC	CGC 1602
QQ	1540 Aggagacdcragcraagtardgrifiticagaaadarcricriggccrcacgg	CAC 1599
à	1603 TTCTGTTTGGACTCCTGAACGAGGAGACCAGGAGCACCTGGAGAAGAGTCTCTV	TGG 1662
Ob	1600 TTTCTGTTTGGCCTCCTCAACGAAGAGATGAGATGCTACCTTGAGGAATCTCG	TGG 1659
à	1663 AAGGTCTCGCCGCACATCAAGATGGACCTGTTGCAGTGGATCCAAAGCAAAGCTC	3AGC 1722
Dp	1660 AGCATCTCCCTCAGGTGAAGGAAGTGTTGGCATGGATCCAAAACAAGGCTG	AGT 1719
λ	1723 GACGGCTCCACCCTGCAGCACCCTTGGAGTTCTTCAGCTGCTTGTACGAGA	CCAG 1782
Dp	1720 GAAGGCTCCACCCTGCACGTCCCTGGAGCTACTCAGCTGCTTGTATGAGG	CAG 1779
ò	1783 GAGGAGGTTATCCAGCAGCCCTGAGCCATCCAGGTGATCGTGGTCACA	CATT 1842
Db	1780 GAGGAGACTTCATCCAGGCCCTGAGCCCACTTTCAAGTGGTTGTAGTCAGAA	CATC 1835
à	4	CCAG 1902
qq	1840 TCAACAAAGATGGAGCACATGGTCTGCTCGTTTTGTGCGAGGTATTGCAGAAAAAA	יייי ממטא

_{엽.}

ò

유

셤

8 B

ઠે

요

ઠે

셤

ઠે

셤

ઠે

셤

ઠે

ò

셤

6 6 6

qq

g

6 B 6

δ

셤

a

ઠે

셤

5 8 5

8

셤

```
3096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human; G-protein coupled receptor related protein; GPCR related protein; NOV; cytostatic; cardiant; antiatteriosclerotic; antidiabetic; immunomodulator; anti-HIV; anorectic; antiasthmatic; haemostatic; antiparkinsonian; neuroprotective; nootropic; gene therapy; vaccine; NOVX-associated disorder; cardiomyopathy; atherosclerosis; cancer; diabetes; immune disorder; AIDS; obesity; asthma; haemacopoietic disorder; Parkinson's disease; Alrheimer's disease; infection; multiple sclerosis; cancer-associated cachexia; wasting disorder; chronic disease; neurogenesis; cell differentiation; cell proliferation; heematopoiesis; wound healing; angiogenesis; chromosome mapping; tissue typing; preventive medicine; pharmacogenomic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ë
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FL, Casman SJ, Edinger SR;
Guo X, Hjalt T, Kekuda R, Li
I, Padigaru M, Patturajan M;
Stone DJ, Spytek KA, Vernet CA
AGGCTGAGGCATCCAGGCTGCAAGCTTCGAGTCCTGTGGCTGTTTGGGATGGACCTGAAT
                                                                                                        AAAATGACCCACAGTAGGTTGGCAGCGCTTCGAGTAACAAAACCTTATTTGGACATTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Novel human GPCR related protein NOV2a cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Anderson DW, Baumgartner JC, Boldog Gangolli EA, Gerlach VL, Gorman L, Marcdougall JK, Malyankar UM, Millet Pena CEA, Rastelli L, Shimkets RA, Voss EZ, Zerhusen BD;
                                                                                                                                                                                                                                                                                                                                                                  BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   04-JUN-2001; 2001US-0295607P.
06-JUN-2001; 2001US-0295661P.
06-JUN-2001; 2001US-0296418P.
14-JUN-2001; 2001US-029858P.
15-JUN-2001; 2001US-029858P.
15-JUN-2001; 2001US-029858P.
15-JUN-2001; 2001US-029858P.
26-JUN-2001; 2001US-029858P.
26-JUN-2001; 2001US-030883P.
27-AUG-2001; 2001US-0311972P.
27-AUG-2001; 2001US-0311566P.
17-SEP-2001; 2001US-031566P.
17-SEP-2001; 2001US-0312978P.
17-SEP-2001; 2001US-0312978P.
17-SEP-2001; 2001US-0312189P.
18-PEB-2002; 2002US-0361189P.
                                                                                                                                                                                                                                                                                                                                                                  ACD03623 standard; cDNA; 1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2002WO-US017428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2002US-0363676P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2002US-00363676
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (CURA-) CURAGEN CORP.
                                                                                                                                                                                 TGCTGA 3108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2003-140627/13.
P-PSDB; ABU99119.
                                                                                                                                                                                                                                    TGTTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO200299116-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        04-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-AUG-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        12-DEC-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gene; ss.
                                                                           3043
                                                                                                                              3037
                                                                                                                                                                                 3103
                                                                                                                                                                                                                                 3097
                                                                                                                                                                                                                                                                                                                                                                                                                      ACD03623;
                                                                                                                                                                                                                                                                                                               RESULT 14
                                                                                                                         g
                                                                                                                                                                              ò
                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2742
                                                                                                                                                         2016
                                                                                                                                                                                                                                                                                                                                                                2136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2682
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2676
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2802
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2862
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2976
  GTGCTGCACTTGTATGGCGCCACCTACAGCGCGGACGGGGAAGACCGCGGGAGGTGCTCC 1962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2983 CGGCTGAGCCATCCTGGCTGCAAACTCCGAGTCCTCTGGTTATTTGGGATGGACCTGAAT 3042
                                                                                                                                                                                                                                                          2017 TACAGTGCATACCTTTCAGCAGCTGTCTGTACCAACTCCAACCTGATCGAGCTGGCCTTA
                                                                                                                                                                                                                                                                                                                                                             2077 TACCGAAATGCCTTGGGCAGCCAGGGTGTAAGGCTGCTCTGTCAAGGCCTCCGACATGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                              GACCTCGCAGCCGCTGTCATCGCCAACAGGAATTTAATCAGGCTGGACCTCAGTGACAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCTGTGCTCGGCACCCACCCACTCTGGTTGAGTTGGACTGACAGGAAATGCACTGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2617 GIGCTTCTGCTGTGAAGGCCTCAGTCATCCAGATTGCAAACTCCAGACCCTTCGGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACATGCCTCCAAGAGCTGGACCTGAGCTTCAATGACTTGGGAGACAGGGGCCTGCAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTGGGGGAAGCCTGAGGCACCAGACCTGCAGACTCCAGAAGCTGTGGCTGGACTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2923 ACCGACCTTTACCTGACCAACAACGCCCTAGGGGACACAGGTGTCCGACTGCTTTGCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TACAGTGAACATCTGGCAGCGGCCCTGTGCACCAATCCAAACCTGATAGAGCTGTCTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                   AACTGCAAACTTCAGAACCTGAGGCTGAAGAGGTGCCGCATCTCCAGCTCAGCCTGCGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2377 TCTGTTCTCAGCAACAACTCATCTGGTAGAACTGGATCTGACAGGAAACCCCTTGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GATTTGGGCCTGAGGTTACTATGCCAGGACTGAGGCACCCAGTCTGCAGACTACGGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2437 GATTCGGGGCTGAAGTTACTGTGTCAAGGGCTAAGGCACCCTGTCTGCAGGCTGCGTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2497 crerecreadarcreccacerregacaacerrecreceaacarcresecrerecre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2557 AAAATGAACCAGAGCCTGCTGGAGCTGGACCTGGGTCTGAATGATCTTGGAGATTCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGCATCTGCCGGCTGGGCGCTCTGTGAGGGTCTTTCTGTGGTGCTCCAGGCCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2677 Gecarriecceacresecreacrescreteresesarceceasresereicasereas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2743 CACAACCTCCGGGAGCTGGACTTTGAGTTTTCAACGACCTGGGAGACTGGGGCCTGTGGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTGGCTGAGGGGCTGCAACATCCCGCCTGCAGACTCCAGAAACTGTGGCTGGATAGCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCCCTCACAGCCAAGGCTTGTGAGAATCTTTACTTCACCCTGGGGATCAACCAGACCTTG
                                                Griderreactricaerrectriaria de la consecuencia del la consecuencia del 
                                                                                                   GCAGGAGCGCACACGCTGTTGGTGCAGCTCAGAGCAGGACCGTTCTGCTGGACGCC
                                                                                                                                                                                                                                                                                                             TACCGAAATGCCCTGGGCAGCCGGGGGGGTGAAGCTGCTCTGTCAAGGACTCAGACACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCCTTGGATTCCCAGGCATGATGCTGCTTTTGCGAGGGCCTGCGGGCATCCCCAGTGCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTGCAGATGATTCAGTTGAGGAAGTGTCAGCTGGAGTCCGGGGCTTGTCAGGAGATGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTGTGGCTGAAGATCTGCCGCCTCACTGCTGCTGCCTGTGACGAGCTGGCCTCAACTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGTGTGAACCAGAGCCTGAGAGGTGGACCTGAGCCTGAATGAGCTGGGGGACCTCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTGCTGCTGCTGTGTGAGGGCCTCAGGCATCCCACGTGCAAGCTCCAGACCCTGCGGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2917
  1903
                                                   1900
                                                                                                                                                                                                                                                                                                                                                                                                                   2143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2563
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2863
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2857
                                                                                                      1963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2443
                                                                                                                                                                                                         2023
                                                                                                                                                                                                                                                                                                             2083
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2803
```

or New NOVX polypeptides and nucleic acids, useful for preventing or treating NOVX-associated disorders, e.g. cancer, cardiomyopathy, atherosclerosis, or diabetes, and in chromosome mapping, tissue typing pharmacogenomics.

20; Page 98-99; 332pp; English Claim

g

셤 ò

8 6 8 දු දු

ò 8 S

The invention describes an isolated polypeptide (I) comprising any of 27 (18-961 residue amino acid sequences, given in the specification, a mature form of them, a sequence that is at least 95 * identical to them, or a sequence having one or more conservative substitutions in them. The conservative substitutions in them. The polypeptide is useful in manufacturing a medicament for treating a spondated with the polypeptide. The NoVx polypeptides, polymelectides and antibodies are useful in treating or preventing NoVx-associated and antibodies are useful in treating or preventing NoVx-associated disorders, Alzabimer's disease, harbackes, alla products, cancer. disbease, Alzabimer's disease, infections, multiple sclerosis, cancer. C disorders, Alzabimer's disease, infections, multiple sclerosis, cancer. C diseases. The nucleic acids and polypeptides may also be used as targets for the identification of small molecules that modulate or inhibit e.g. neurogenesis, cell differentiation, cell proliferation, heematopolesis, or nutibodies that bind immunospecifically to NoVX substances for use in therapeutic or diagnostic methods. The nucleic acids are further used as the therapeutic or diagnostic methods. The nucleic acids are further used as contact and pharmacogenomics. The polypeptides are also useful as vaccines. This sequence encodes a novel human G-protein coupled receptor crelated protein NOV

8 & 8

පු

ò

Sequence 1800 BP; 366 A; 502 C; 565 G; 367 T; 0 U; 0 Other;

1461 1521 1401 1341 1221 1281 540 1161 420 480 ë, 120 240 300 9 GCAGGCCCAGACCAGGACGTGACCAGGCTGTTGACCGAGTACGCGTTTTTCTGAAAGGAGC GCAGGCCCAGACCAGGACGTGACCAGGCTGTTTGACCGAGTACGCGTTTTCTGAAAGGAGC CTCAACATGAACATCTTCCAGAAGGACATCAACTGTGAGGTACTACAGCTTCATCCAC GAGCCTCTCTTCACCATGTGCTTCGTCCCCTGGTGTGCTGGGTGGTGTGTACCTGCCTC CCACCCAACCAGAGGGGTTGTGCTCCTTGGCGGCAGATGGGCTCTGGAATCAGAAATC CTATTTGAGGAGCAGGACCTCCGGAAGCACGCCTAGACGGGGAAGACGTCTCTGCCTTC TTGAGTTTCCAGGAATTCTTTGCAGCTATGTACTATATCCTGGACGAGGGGAGGGCGGG CAGCAGCAGCTGGAGGGTGGGGGCTGTTGAGACAGACGTCCAGGACCACCACTGCAGTG TACATGCTCTACCTGCTGAGTCTGAACCCGAAGCCGGGGGCCCCGGCGCCTCCAAGCC Gaps 12; Indels DB 8; 1; Score 1705.4; Pred. No. 0; 0; Mismatches 54.9%; illarity 99.3%; Conservative 0 Similarity Best Local Simi Matches 1748; 1582 301 361 1522 1462 481 1102 1162 1222 1282 1342 1402 421 ч 61 121 181 241 Match

g ò 요 8 g ò ద ò

8

셤

ద à

ò

Q ò ద

₽

g

ઠે

ò g

g

à g ò 셤 8 ò

2478 2358 2178 2238 2121 1881 1941 2001 2061 096 1701 1761 1821 900 840 720 780 099 TGTGAGGGTCTTTCTGTGGTGCTCCAGGCCAACCACAACCTCCGGGAGCTGGACTTGAGT CTGAGCCTGAATGAGCTGGGGGACCTCGGGGGTGCTGCTGTGTGAGGGCCTCAGGCAT CACCCAGTCTGCAGACTACGGACTTTGT----GGCTGAAGATCTGCCGCCTCACTGCT GCTGCCTGTGACGAGGTGGCCTCAACTCTCAGTGAACCAGAGCCTGAGAGGGGGCT ڎۏڎۼڎڡؙؽۏڎۼۼٷۿؽۮڎۼٷۼڎڎۮؽٷڎ---؋ڟؽؽۏڟٷڎۼؽۮؽۏڎۏٷڎؽۏؽڎؽۏڎۏڎڎ GACCTGACAGGAAATGCACTGGAGGATTTGGGCCTGAGGTTACTATGCCAGGGACTGAGG TGTCAAGGACTCAGACACCCCAACTGCAAACTTCAGAACCT ---GAGGCTGAAGAGGTGC GGCCTGCGGCATCCCCAGTGCAGGTGATGATTCAGTTGAGGAAGTGTCAGCTGGAAG TCCGGGGGTTGTCAGGAGATGGCTTCTGTGCTCGGCACCAACCCACATCTGGTTGAGTTG AACCTGATAGAGCTGTCTCTGTACCGAAATGCCCTGGGCAGCCGGGGGGGTGAAGCTGCTC CGCATCTCCAGCTCAGCCTGCGAGGACCTCTGCAGCTCTCATAGCCAATAAGAATTTG ACAAGGATGGATCTCAGTGGCAAACGGCGTTGGATTCCCCAGGCATGATGCTTTTGCGAAG AAGCGCTGCAGGAGCGCCCAGGTGCTGCACTTGTATGGCGCCACCTACAGCGCGGACGGG GAAGACCGCGCGAGGTGCTCCGCAGGAGCGCACACGCTGTTGGTGCAGCTCAGACCAGAG AGGACCGTTCTGCTGGACGCCTACAGTGAACATCTGGCAGCGCGCCCTGTGCACCAATCCA CTGGAGAAGACTCTGCTGGAAGGTCTCGCCGCACATCAAGATGGACCTGTTGCAGTGG AGCTGCTTGTACGAGAATCCAGGAGGAGGAGTTTATCCAGCAGGCCCTGAGCCACTTCCAG GTGATCGTGGTCACCATTGCCTCCAAGATGGAGCACATGGTCTCCTCGTTCTGTTG ATCCAAAGCAAAGCTCAGAGCGACGGCTCCACCTGCAGCAGGGCTCCTTGGAGTTCTTC 2653 1381 1441 2593 1501 1561 1321 2479 2533 1081 1141 2299 1201 2359 1261 2419 2179 2239 661 1882 1942 2002 2062 961 2122 1021 721 841 781 541 1702 1762 1822 1642 601

g

8 B S

8 8 ⋧ 셤

```
The invention relates to an isolated polypeptide comprising one of 10 human nucleic acid associated protein (NAAP1-10), or a biologically active or immunogenic fragment of the polypeptide, and their encoding nucleic acid. Also included are a recombinant polynucleotide comprising a promoter sequence operably linked to the polynucleotide, a cell transformed with the recombinant polynucleotide, a transgenic organism comprising the recombinant polynucleotide, an anti-NAAP antibody, screening for a compound that is effective as an anti-Agonist or modulator of NAAP, generating an expression profile of a sample containing the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Hafalia AJA, Lu DAM, Arvizu C, Swarnakar A, Lu Y;
Baughn MR, Tang YT, Lee EA, Yao MG, Ramkumar J, Khan FA;
Ding L, Yue H, Gietzen KJ, Walia NK, Thangavelu K;
Marquis JP;
                                                                                                                                                                                                                                                                                                                                                                  Human; 88; gene; nucleic acid associated protein; NAAP; cancer;
ecal proliferative disease; cancer; atherosolerosis; peptitis;
neurological disorder; Parkinson's disease; Alzheimer's disease; stroke;
epilepsy; developmental disorder; renal tubular acidosis; anaemia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New human nucleic acid-associated proteins (NAAP), useful for diagnosing, treating and preventing diseases or conditions associated with the aberrant NAAP expression, e.g. cancer, hepatitis, AIDS, atherosclerosis,
glaucoma; hypothyroidism; autoimmune disorder; AIDS;
Inflammactory disorder; acquired immunodeficiency syndrome; allergy;
atopic dermatitis; arthritis; bacterial infection; viral infection;
parasitic infection; protozoal infection; fungal infection.
                                                                                                                                                                                                                                                                                                                                   Human cDNA encoding NAAP9, from INCYTE no. 429930CB1.
                                                                                                                   TGCAGACTCCAGAAACTGTGG 2850
                                                                                                                                                recadacrecadaacrered 1761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 5; Page 160; 162pp; English.
                                                                                                                                                                                                                                 ABS78719 standard; cDNA; 2158 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2001US-0268118P.
2001US-0270963P.
2001US-0270858P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2001US-0271194P.
2001US-0274071P.
2001US-0283496P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2001US-0344650P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (INCY-) INCYTE GENOMICS INC.
                                                                                                                                                                                                                                                                                                  16-DEC-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2002-723320/78.
P-PSDB; ABG97475.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO200272630-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    07-MAR-2001;
12-APR-2001;
09-NOV-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   21-FEB-2001;
22-FEB-2001;
23-FEB-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     07-FEB-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      09-FEB-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Elliott VS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Thornton M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      19-SEP-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Warren BA,
Gandhi AR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          infections.
                                                                                1681
                                                                                                                 2830
                                                                                                                                                  1741
                                                   2770
                                                                                                                                                                                                                                                                   ABS78719;
                                                                                                                                                                                                  RESULT 15
                                                                                                                                                                                                                   ABS78719
                                                                                g
                                                                                                                 δ
                                                                                                                                                셤
                                                                                                                                                                                                                                                                  ઠે
```

```
affixed on a solid substrate, nucleotide molecule comprises a first oligonucleotide to polynucleotide sequence specifically hybridisable with at least 30 contiguous nucleotides of the target (NAAP) polynucleotide.

The polypeptides and polynucleotides are useful in diagnosing, treating and preventing diseases or conditions associated with the decreased expression or overexpression of NAAP, such as cell proliferative diseases (e.g. cancer, atherosclerosis, hepatitis), neurological disorders

(e.g. cancer, atherosclerosis, hepatitis), neurological disorders

(e.g. cancer, atherosclerosis, hepatitis), neurological disorders

(barkinson's disease, Alzheimer's disease, stroke, epilepsy), acquired immunodeficiency syndrome), allergies, atopic dermatitis, arthritis) and immunodeficiency syndrome), allergies, atopic dermatitis, arthritis) and infections (e.g. bacterial, viral, parasitic, protozoal, fungal and many other diseases and disorders listed in the specification. These are also useful in assessing the effects of exogenous compounds on the expression of the fragments are useful in screening compounds for effectiveness as agonist or antagonist of the polypeptides, or in altering the expression of the target polynucleotide and compounds that specifically bind to or modulate target polynucleotide or in a president or modulate target polynucleotide or in a president or modulate target polynucleotides.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2007
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                               the activity of the polypeptide. The microarray is useful in monitoring or measuring protein-protein interactions, drug-target interactions, and gene expression profiles. The present sequence encodes an NAAP protein
  nucleotide molecules
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1408 ATGAACATCTTCCAGAAGGACATCAACTGTGAGAGGTACTACAGCTTCATCCACTTGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 ATGAACATCTTCCAGAAGGACATCAACTGTGAGGGGGTACTACAGCTTCCACTTGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCAGACCAGGACGTGACCAGGCTGTTGACCGAGTACGCGTTTTCTGAAAGGAGCTTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121 CCAGACCAGGACGTGACCAGGCTGTTGACCGAGTACGCGTTTTTCTGAAAGGAGCTTTCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCACTCACCAGCCGCTTCCTGTTTGGACTCCTGAACGAGGAGACCAGGAGCCACCTGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181 GCACTCACCAGCCGCTTCCTGTTTGGACTCCTGAACGAGGAGACCAGGAGCCACCTGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAGAGTCTCTGCTGGAAGGTCTCGCCGCACATCAAGATGGACCTGTTGCAGTGGATCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241 AAGAGTCTCTGCTGGAAGGTCTCGCCGCACATCAAGATGGACCTGTTGCTGCAGTGGATCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGCAAAGCTCAGAGCGACGGCTCCACCCTGCAGCAGGCTCCTTGGAGTTCTTCAGCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGCAAAGCTCAGAGGGACGCTCCACCCTGCAGCAGCAGCAGGGGCTCTTGGAGTTCTTCAGCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTGTACGAGATCCAGGAGGAGTTTATCCAGCAGGCCCTGAGCCACTTCCAGGTGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TIGITACGAGATCCAGGAGGAGGAGTITATCCAGCAGCCCTGAGCCACTTCCAGGTGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTGGTCAGCAACATTGCCTCCAAGATGGAGCACATGGTCTCCTCGTTCTGTAAGAGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGCAGGAGCGCCCAGGTGCTGCACTTGTATGGCGCCACCTACAGCGCGGACGGGGAAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGCGCGAGGTGCTCCGCAGGAGCGCACACGCTGTTGGTGCAGGGCTCAGACCAGAGAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GITCTGCTGGACGCCTACAGTGAACATCTGGCAGCGGCCCTGTGCACCAATCCAAACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTTCTGCTGGACGCCTACAGTGAACATCTGGCAGCGGCCCTGTGCACCAATCCAAACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGCGCGAGGTGCTCCGCAGGAGCGCACACGCTGTTGGTGCAGCTF---ACCAGAGAGCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 2158;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 2158 BP; 489 A; 578 C; 639 G; 452 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 6;
polynucleotides and an array comprising different
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      54.1%; Score 1681.8; 99.7%; Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Similarity 99.7
Matches 1696; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     541
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
```

```
2908 ATCAACCAGACCTTGACCGACCTTTACCTGACCAACAACGCCCTAGGGGACACAGGTGTC 2967
1498 ATCAACCAGACCTTGACCGACCTTTACCTGACCAACAACACCCTAGGGGACACAGGGGTGTC 1557
                                                                                                                                                                                                                                                                                                                                                       2847
                                                                                                                                                                                                                                                                                                                                                                                                       1437
                                                                                                                                                                                                                                                                                                                                                                                                                      2848 TGGCTGGATAGCTGTGGCCTCACAGGCTTGTGAGATCTTTACTTCACCCTGGGG 2907
1438 TGGCTGGATAGCTGTGGCCTCACAGCCTAGTGAGAATCTTTACTTCACCCTGGGG 1497
                                                                                                                                                                                                                                                                                                                                         1317
                                                                                                                                                                                                                                                         CTGGCCTCAACTCTCAGTGTGAACCAGAGCCTGAGAGACTGGACCTGAGCGGAGCTGAACGAGCTGAATGAG 2607
                                                                                                                                                                                                                                                                                         CTGGGGGGACCTCGGGGTGCTGCTGTGAGGCCTCAGGCATCCCACGTGCAAGCTC 2667
                                                                                                                                                                                                                                                                                                                         2727
                                                                                                                            CATCCCCAGTGCAGGCTGCAGATGATTCAGTTGAAGAAGTGTCAGCTGGAGTCCGGGGCT 2367
                                                                                                                                                           2487
                                                                                                                                                                                                            1077
                                                                                                                                                                                                                           2307
                                                               2247
                               2187
                                                                                                             897
2127
                                              777
                                                              2188 AGCTCAGCCTGCGAGGACCTCTGCAGCTCTCATAGCCAATAAGAATTTGACAAGGATG 2247
778 AGCTCAGCCTGCGAGGACCTCTCTGCAGCTCTCATAGCCAATAAGAATTTGACAAGGATG 837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAGACCCTGCGGTTGGGCATCTGCCGGCTGGGGTCTGCCGCCTGTGAGGGTCTTTCTGTG
                                                                                                                                                                                                                                                                                                                                                                                      TATTTGGACATTGGCTGCTGA 3108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3028
                                                                                                                                                                                                                                                                                                                                                                                                            1378
                                                                                                                                                                                                                                                                                                                                                                                            2788
                                                                                                                                                                                                                                                                 2548
                                                                                                                                                                                                                                                                                1138
                                                                                                                                                                                                                                                                                                2608
                                                                                                                                                                                                                                                                                                              1198
                                                                                                                                                                                                                                                                                                                               2668
                                                                                                                                                                                                                                                                                                                                             1258
                                                                                                                                                                                                                                                                                                                                                             2728
                                                                                                                                                                                                                                                                                                                                                                             1318
                                                                                                   2248 (
                                                                                                                   838
                                                                                                                                  2308
                                                                                                                                                  868
                                                                                                                                                                  2368
                                                                                                                                                                                 958
      2068
                     658
                                    2128
                                                    718
```

8 S

음 상 음

g &

6 B 6

셤

8

ò

중 염

g

Search completed: February 8, 2005, 16:38:28 Job time : 1538 secs us-10-781-294-23.rni

```
Sequence 1, Appli
Sequence 3, Appli
Sequence 3, Appli
Sequence 11, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 3, Appli
Sequence 3, Appli
Sequence 3, Appli
Sequence 395, Appli
Sequence 1011, Appli
Sequence 1011, Appli
Sequence 1011, Appli
Sequence 14951, Appli
Sequence 14951, Appli
Sequence 33, Appli
Sequence 34, Appli
Sequence 35, Appli
Sequence 35, Appli
Sequence 37, Appli
Sequence 37, Appli
Sequence 17, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  14951, A
27, Appl
27, Appl
27, Appl
27, Appl
9, Appli
9, Appli
9, Appli
                                                                                               8, 2005, 16:04:26 ; Search time 525 Seconds (without alignments) 9686.758 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 27, Sequence 27, Sequence 27, Sequence 27, Sequence 9, Sequence 9, Sequence 9, Sequence 9,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Description
                                                                                                                                                                      US-10-781-294-23
3i08
1 atgctacgaaccgcaggcag......atttggacattggctgctga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /cgn2_6/ptodata/1/ina/5A_COMB.seq:*
/cgn2_6/ptodata/1/ina/5B_COMB.seq:*
/cgn2_6/ptodata/1/ina/6A_COMB.seq:*
/cgn2_6/ptodata/1/ina/6B_COMB.seq:*
/cgn2_6/ptodata/1/ina/pcTUS_COMB.seq:*
/cgn2_6/ptodata/1/ina/pcTUS_COMB.seq:*
GenCore version 5.1.6
(c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-388-221B-1

US-09-388-221B-9

US-09-388-221B-3

US-09-388-221B-11

US-08-210-731-1

US-08-910-731-1

US-08-910-731-7

US-08-910-731-7

US-08-910-731-7

US-08-910-731-7

US-08-910-731-7

US-08-910-731-7

US-09-10-731-7

US-09-10-731-7

US-09-10-731-7

US-09-10-731-7

US-09-10-731-7

US-09-10-731-7

US-09-10-731-7

US-09-10-73-7

US-09-04-10-17

US-09-10-17-7

US-09-10-17-7

US-09-17-7

US-09-17
                                                                                                                                                                                                                                                                                                                               Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                1202784 segs, 818138359 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                     Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                  nucleic search, using sw model
                                                                                                                                                                                                                                          IDENTITY NUC Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Issued_Patents_NA:*
                                                                                                                                                                                                                                                                                                                                                                   seq length: 0
seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Copyright
                                                                                                   February
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query
Match I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score
                                                                                                                                                                                                                                                                                                                                                                   Minimum DB
Maximum DB
                                                                  nucleic
                                                                                                                                                                                                         Sequence:
                                                                                                                                                                                                                                                                                                Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Database
                                                                                                    е
:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Run
```

```
Sequence 1, Application US/09388221B
Sequence 1, Application US/09388221B
Patent No. 6818750:
GENERAL INFORMATION:
APPLICANT: Reed, John C.
TITLE OF INVENTION: No. 6818750el Card Proteins Involved in Cell Death Regulation FILE REFERENCE: P-LJ 3650
CURRENT APPLICATION NUMBER: US/09/388,221B
CURRENT FILING DATE: 1999-09-01
NUMBER OF SEQ ID NOS: 30
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          778
                                                  Appl
Appli
Appli
Appli
Appli
Appli
Appli
Appl
                                                                                                                                                          , Appl
Appli
Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1031 ccaggcadgrigaaggaagccrigdgagagaggccagcrigrargggaacgcarg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCGAGCCACCGCGCACCGTGGTCATGCAAGGCGCGGGCAGGGATAGGCAAGTCCATGCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     971 CCCAAGAACTTGCATAGTCATACTGCAGGGGCTGCTGGAATTGGGAAGTCAACACTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CACACAAGGTGATGCTGGACTGGCGGACGGGAAGCTCTTCCAAGGCAGATTTGATTATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCTTCTACATCAACTGCAGGAGATGAACCAGAGTGCCACGGAATGCAGCATGCAAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCATCTTCAGCTGCTGGCCTGAGCCCAGCGCGCCTCTCCAGGAGCTCCGAGTTCCCG
                                                Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
                                                                                                                                                                                           Sequence
                                                                                                                                                                                 Sequence
    Sequence
                 Sequence
                            Sequence
                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        81;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 4422;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               12.8%; Score 398; DB 4; Length 44 
Llarity 53.6%; Pred. No. 5.9e-96; 
Conservative 0; Mismatches 855; Indels
US-09-865-364-9
US-09-091A-25
US-09-245-281-25
US-09-245-281-25
US-09-340-620A-25
US-09-091-041-7
US-09-245-281-7
US-09-245-281-7
US-09-245-281-7
US-09-245-281-7
US-09-245-281-7
US-09-245-281-7
US-09-245-281-7
US-09-340-620A-7
US-09-340-620A-63
US-09-340-620A-63
US-09-340-620A-63
US-09-340-630-15
US-09-340-631-15
                                                                                                                                                                                                                                          ALIGNMENTS
   TYPE: DNA ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ) NAME/KEY: CDS
; LOCATION: (1)..(4422)
US-09-388-221B-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Simi
Matches 1082;
                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH: 4422
                                                                                                                                                                                                                                                                                       US-09-388-221B-1
  539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE:
   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
```

1207

838

AGGGCTCCTTTTCATCATCGACGGCTTCGATGAGCTCAAGCCTTCTTTCCACGATCCTC

779 1148

ద ò 셤

1208

1268

g

ò

ð

rcarcegaaaagarcedacacrccedcrcccarragacagarccrercraggccag

AGCGGCTGCTCTTCATCCTCGATGGTGTAGATGAGCCAGGATGGGTCTTGCAGGAGCCGA

839 AGGGACCCTGGTGCCTCTGCTGGAGAGAAACGGCCCACGGAGCTGCTTCTTAACAGCT GITCTGAGCICTGTCTGCACTGGAGCCACACCACCGGCGGGATGCACTGCTGGCAGTT

1327

899 TAATTCGGAAGAAGCTGCTCCCTGAGCTATCTTTGCTCATCACCACGGCCCACGGCTT 958

```
NAME/KEY: CDS
LOCATION: (1)..(4365)
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH: 4556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       599
                                                                                                                                                                                                                                                                                                                                                  2273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2453
                                                                                                                                                                                         2153
                                                                                                                                                                                                                                                                                                                                                                                                                              2333
                                                                        2396
                                                                                                               2093
                                                                                                                                                      2456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                     8 8
                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                  엄
                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                   유
                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                             원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           원
                                                                                                                                                                                 ₹
                                   ò
                                                                 원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1973 ACACGCTGTTGGTGCAGCTCAGACCAGAGAGGACCGTTCTGCTGGACGCCTACAGTGAAC 2032
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        rcrigacacaaargargargaccarrircaaagaaa---ragacargrargaraaaaaaaaaa 2245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        resakscretrasterecaetrirersearrakarreasececeaesaksakseetrekse 2305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGTATGGCGCCACCTACAGCGCGGGACGGGAAGACCGCGCGAGGTGCTCCGCAGGAGCGC 1972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2086
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCCTGGACGAGGGGAGGCAGGCCCAGACCAGGACGTGACCAGGCTGTTGACCG 1558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1790 Ardedecencarcarcricaccirreradadardegerarrerreadadedecedadede 1849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGAGGTACTACAGCTTCATCCACTTGCAGGAATTCTTGCAGCTATGTACTATA 1498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1907 İCTİĞGAĞGATĞAĞAĞĞĞĞĞĞĞĞĞĞĞTAAAÇATTCTAATTĞCAİCATAĞATTİĞĞAAAĞA 1966
                                                                                                                                   1078
                                                                                                                                                                                                                  1138
                                                                                                                                                                                                                                                         1567
                                                                                                                                                                                                                                                                                            1627
                                                                                                                                                                                                                                                                                                                                                                        1258
                                                                                                                                                                                                                                                                                                                                                                                                               1687
                                                                                                                                                                                                                                                                                                                                                                                                                                                  1318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACGGGGAAGACGICTCTGCTTCCAAACATCTTCCAAAAGGACATCAACTGTG 1438
                                                                                                                                                                             1507
                                                                                              1447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ------daggcagcagcagarcagarcacadarcagarca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTATCCAGCAGGCCCTGAGCCACTTCCAGGTGATCGTGGTCAGCAACATTGCCTCCAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGGAGCACATGGTCTCCTCGTTCTGTCTGAAGCGCTGCAGGAGCGCCCCAGGTGCTGCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1559 AGTACGCGTTTTCTGAAAGGAGCTTCCT----GGCACTCACCAGCCGCTTCCTGTTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1967 céctadaagcarardeaatracaregécretrregésérateaaccacerritécraries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GACTCCTGAACGAGGAGACCAGGAGCCACCTGGAGAAGAGTCTCTGCTGGAAGGTCTCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2027 GCCTGTTAAGTGATGAGGGGAGAGAAGAAGAGAGAAACATCTTTCACTGCCGGCTGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGCACATCAAGATGGACCTGTTGCAGTGGATCCAAAGCAAAGCTCAGAGGGGACGGCTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -gcriecalecacacricreridalericcricacriecriteracaadacricaaacaardr
                                                                                                                                                                                                                                                                                                                                                                                                     CGGGGGCCCCCCCCCCCCCCCACCCAGGAGGGTTGTGCTCCTTGGCGGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1319 ATGGGCTCTGGAATCAGAAAATCCTATTTGAGGAGCAGGACCTCCGGAAGCACGGCCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCTTCAATTACGTGAGGGACAACGAGCCTCTTTCACCATGTGCTTCGTCCCCTGGTGT
                                                                                                                                                                                                                                                                                                                     CGTCCAGGACCACCACTGCAGTGTACATGCTCTACCTGAGTCTGATGCAACCCAAGC
recresesanancratacterangeserctrecreaterenesere
                                                                                            ricciainatecricontrande de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta del reconsta de la reconsta de la reconsta del reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta del reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta de la reconsta della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della dell
                                                                                                                                     <u>AGGCAGAAAGGAATACTTCTACAAGTATTTCCACAATGCAGGCGGGCCAAG</u>
                                                                                                                                                                                                                                                       ccrirragerragicaaarcaaacaagecricigggcecrigigrecrigigecergegrigi
                                                         TGGAGAAGCTCCACCGTCTGCTGGAGCACCCCAGGCATGTGGAGATCCTGGGCTTCTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CATTGG-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1439
                                                                                                                                                                                                                                                                                                                                                                                                                          1628
                                                                                                                                                                                                                                                                                                                                                                                                                                                               1259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1379
                                                                                                                                                                                                                                                                                                      1139
                                                                                                                                                                                                                                                                 1508
                                                                                                                                                                                                                                                                                                                                                                                     1199
                                                                                                                                                                                     1448
                                                                                                                                                                                                                            1079
                                1328
                                                                      959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8 B 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8 & 8
8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                             엄
                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                             g
                                                                                                                                                                                                                            ò
                                                                      à
                                                                                                         유
                                                                                                                                                ò
```

```
US-09-388-221B-9
US-09-388-221B-9
Sequence 9, Application US/09388221B
Sequence 9, Application US/09388221B
Sequence 9, Application US/09388221B
Setent No. 6818750
GENERAL INFORMATION:
TITLE OF INVENTION:
TITLE OF INVENTION:
CURRENT APPLICATION NUMBER: US/09/388,221B
CURRENT APPLICATION NUMBER: US/09/388,221B
CURRENT APPLICATION NUMBER: 1999-09-01
SCOFTWARE: Patentin Ver. 2.0
SEQID NO 9.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ę,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2512
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCACCAACCCACATCTGGTTGGACTTGGACAGGAAATGCACTGGAGGATTTGGGCC 2452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2272
                                                                                                                                                                                                                                                                                                                                                                                                                                    2636 ATGCTGGAGCCAAACACCTTTGCCAGAGACTGAGACAGCCGAGCTGCAAGCTACAGGGAC 2695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2696 igciadciderciacieresectreacereracidecidedadecidedecidididerra 2755
                                                                                         2455
                                                                                                                                  2152
2342 CCACCATGGTAGTCCTGTTCAG-----GTGGGTCCCAGTCACAGATGCCTATTGGCAGA 2395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cacacaaagstgatgctggactgggcggacgggaagctcttccaaggcagatttgattatc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 drgcciagcicicagccircaagaadacradaccracaacaaacaaccradardacarradca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGAGGTTACTATGCCAGGGACTGAGGCACCCAGTCTGCAGACTACGGACTTTGTGGCTGA
                                                                         cechaacccacrendcaardaaaarrentaaaaccchaaaacccreecrecrecrecre
                                                                                                                                                                                                                       TTCAGAACCTGAAGGCTGAAGGGTGCCGCATCTCCAGCTCAGCCTGCGAGGACCTCTCTG
                                                                                                                                                                                                                                                       2516 IGAGACCCTGCGGTTGGCTGCCTGTGGCTGAGGACTGCAGGACTGCACCTTGCCT
                                                                                                                                                                                                                                                                                                          2213 CAGCTCTCATAGCCAATAAGAATTTGACAAGGATGGGATCTCAGTGGCAACGGCGTTGGAT
                                                                                                                                                                                                                                                                                                                                                   TCCCAGGCATGATGCTGCTTTGCGAGGGCCTGCGGCATCCCCCAGTGCAGGCTGCAGATGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTCAGTTGAGGAAGTGTCAGCTGGAGTCCGGGGCTTGTCAGGAGATGGCTTCTGTGCTCG
                                             ATCTGGCAGCGCCCTGTGCCACCAATCCTGATAGAGCTGTCTCTGTACCGAAATG
                                                                                                                                  CCTGGGGGGGGGGGGGGGGTGAAGCTCTGTCAAGGACTCAGACACCCCAACTGCAAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; OTHER INFORMATION: Description of Artificial Sequence: Synthetic; ; OTHER INFORMATION: Construct US-09-388-221B-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             81;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 4556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 398; DB 4; Length 45.
Pred. No. 6e-96;
0; Mismatches 855; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2876 Accagacaacrchgagrigargagargaggcaggaacrd 2913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2513 AGATCTGCCGCCTCACTGCTGCCTGTGACGAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 53.6%;
Matches 1082; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: DNA
ORGANISM: Artificial Sequence
```

2188 1852 2032 2395 2092 2455 2152 2515 2212

1972 2341

```
Sequence 3. Application US/09388221B
Sequence 3. Application US/09388221B
Patent NO. 6818750
GENERAL INFORMATION:
APPLICANT Reed, John C.
APPLICANT Reed, John C.
TITLE OF INVENTION: No. 6818750el Card Proteins Involved in Cell Death Regulation FILE REFERENCE: P-LJ 3650
CURRENT PAPLICATION NUMBER: US/09/388,221B
CURRENT FILING DATE: 1999-09-01
NUMBER OF SEQ ID NOS: 30
SEQ ID NO 3
LENGTH: 4200
TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Tecageregreagereagecreacereageregreecagecreagereragerera 2755
                                                                                                                                                                                                                                                                                                                                                                                                                                    2342 ccaccardenadrecrentrale -----eredereceaerecadareceratresea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Teccactectergagagactcaggcatcctcctgcaaactcatacgcctgggctgg
                          GTACGAGATCCAGGAGGAGGAGT
                                                    2130 -GCTGCAGCCACACTCTCTGGAGTCCCTCCACTGCTTGTACGAGACTCGGAACAAAACGT
                                                                                                               TTATCCAGCAGGCCCTGAGCCACTTCCAGGTGATCGTGGTCAGCAACATTGCCTCCAAGA
                                                                                                                                                            rccrgacacacaagrgarggccccarrrcgaagaa---reggcargrgragaaacagaca
                                                                                                                                                                                                            TGGAGCACATGGTCTCCTCGTTCTGTCTGAAGCGCTGCAGGAGCGCCCAGGTGCTGCACT
                                                                                                                                                                                                                                                  regaecrerraererecaerrirerecarraaarreaeceeceaegraagaaecrereaec
                                                                                                                                                                                                                                                                                                    TGTATGGCGCCACCTACAGCGCGGACGGGGAAGACCGCGCGAGGTGCTCCGCAGGAGCGC
                                                                                                                                                                                                                                                                                                                                              ACACGCTGTTGGTGCAGCTCAGAGCAGCAGACGTTCTGCTGGACGCCTACAGTGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATCTGGCAGCGGCCCTGTGCACCAATCCAAACCTGATAGAGCTGTCTCTGTACCGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCCTGGGCAGCCGGGGGGAAGCTGCTCTGTCAAGGACTCAGACACCCCAACTGCAAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTCAGAACCTGAAGGCTGAAGGTGCCGCATCTCCAGCTCAGCCTGCGAGGACCTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2213 CAGCTCTCATAGCCAATAAGAATTTGACAAGGATGGATCTCAGTGGCAACGGCGTTGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        rresecreasaccasaccricaccasecrisaccissaccisasecricaars
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2273 TCCCAGGCATGATGCTGCTTTGCGAGGCCTGCGGCATCCCCAGTGCAGGCTGCAGATGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2636 ATGCTGGAGCCAAACACCTTTGCCAGAGACTGAGACAGCCGAGCTGCAAGCTACAGCGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTCAGTTGAGGAAGTGTCAGCTGGAGTCCGGGGCTTGTCAGGAGATGGCTTCTGTGCTCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCACCAACCCACATCTGGTTGAGTTGGACCTGACAGGAAATGCACTGGAGGATTTGGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGAGGTTACTATGCCAGGGACTGAGGCACCCAGTCTGCAGACTACGGACTTTGTGGCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGATCTGCCGCCTCACTGCTGCTGTCTGACGAGCTG 2550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Accagacaacrcrgagrgargagargaggggaggagrg 2913
                          ccrigcagcaggcrccrrggagrrcrrcagcrgcr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 3
US-09-388-221B-3
                                                                                                                                                                                                                                                      2246
                                                                                                                                                                                                                                                                                                                                              2306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2696
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2513
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2876
                          1733
                                                                                                               1793
                                                                                                                                                            2189
                                                                                                                                                                                                            1853
                                                                                                                                                                                                                                                                                                      1913
                                                                                                                                                                                                                                                                                                                                                                                           1973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2453
                                                      g
                                                                                                               8 6
                                                                                                                                                                                           ò
                                                                                                                                                                                                                                             용
                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                  8 6 6 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1018
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2026
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1672
                                                                                                                                                                                                                                                                                                                                                                    1327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGGCAGAAAGGAATACTTCTACAAGTATTTCCACAATGCAGAGCAGGCGGGCCAAG 1078
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGAGGTACTACAGCTTCATCCACTTGAGTTTCCAGGAATTCTTTGCAGCTATGTACTATA 1498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1850 TGAG----CTACAGCTTCATTCACTCTGTTTCCAAGAGTTCTTTGCAGCAATGTCCTATG 1906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCCTGGACGAGGGGGGGGGGCAGGCCCAGACCAGGACGTGACCAGGCTGTTGACCG 1558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2087 AGGG-----GAGGAACCTGATGCAGTGGGTCCCTGCAGCTGCT----- 2129
                                                                    crrccaagaccaccaccacrerereracarracerreceagererecaagereage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGGGCATCTGGCAAAAAAAACCCTTTTCAGTCCAGATGACCTCAGGAAGCATGGGTTAG 1789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACGGGGAAGACGTCTCTTCCTCAACATGAACATCTTCCAGAAGGACATCAACTGTG 1438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGCACATCAAGATGGACCTGTTGCAGTGGATCCAAAGCAAAGCTCAGAGCGACGGCTCCA 1732
CCAGGCAGGTGAAGGAAGCCTGGGGGAGAGGCCAGCTGTATGGGGACCGCTTCCAGCATG 1090
                                                                                                                                                                                  TCATCGGAAAAGATGGGACAGCCACTCCGGCTCCCATTAGACAGATCCTGTCTAGGCCAG 1207
                                                                                                                                                                                                                                                                                                                         868
                                                                                                                                                                                                                                                                                                                                                                                                                   928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGGAGAAGCTCCACCGTCTGCTGGAGCACCCCAGGCATGTGGAGATCCTGGGCTTCTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCTTCAATTACGTGAGGGACAACGAGCCTCTCTTCACCATGTGCTTCGTCCCCCTGGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGGGGGCCCCCCCCCCCCCCCCCCCCACCAGAGAGAGGGTTGTGCTCCTTGGCCGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATGGGCTCTGGAATCAGAAATCCTATTTGAGGAGCAGGACCTCCGGAAGCACGGCCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATGGGGCCATCATCTCCACCTTCTTGAAGATGGGTATTCTTCAAGAGCACCCCATCCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 rcrrgaagargaadagagagagaaaacarrcraarrgcarcaragarrigaaaaga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cecracia de contra de la contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de co
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ccrictraactearcaccecacacacacacacacacacacaterretreactecececeretre
                                                                                                                                    TCATCTTCAGCTGCTGGCCTGAGCCCCAGCGCCTCTCCCAGGAGCTCCAGGAGTTCCCCG
                                                                                                                                                                                                                               AGCGCCTCCTTTTCATCATCGACGCTTCGATGAGCTCAAGCCTTCTTTCCACGATCCTC
                                                                                                                                                                                                                                                                                                                         AGGACCCTGGTGCCTCTGCTGGAGGAGAAACGCCCACGGAGCTGCTTCATTAACAGCT
                                                                                                                                                                                                                                                                                                                                                                    GTTCTGAGCTCTGTCTGCACTGGAGCCAGCCACAGCGGGGGGATGCACTGCTGGGCAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                 TAATTCGGAAGAAGCTGCTCCCTGAGCTATCTTTGCTCATCACCACACGGCCCACGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   recaeaaccicarrecrireringeaecaecacerreegraeaegreereegricie
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ccititaegriceicaaacaaacaaagecriciggeccicigigiciicigeccicgecigi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCTGGGTGGTGTGTACCTGCCTCCAGCAGCTGGAGGGTGGGGGGGCTGTTGAGACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGTCCAGGACCACCACTGCAGTGTACATGCTCTACCTGCTGAGTCTGATGCAACCCAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGTACGCGTTTTCTGAAAGGAGCTTCCT-----GGCACTCACCAGCCGCTTCCTGTTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GACTCCTGAACGAGGAGCCAGGAGCCACCTGGAGAAGAGTCTCTGCTGGAAGGTCTCGC
                                             TCTTCTACATCAACTGCAGGGAGATGAACCAGAAGTGCCACGGAATGCAGCATGCAAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CATTGG-
                                                                                                                                                                                  1148
                                                                                                                                                                                                                                                                            1208
                                                                                                                                                                                                                                                                                                                       839
                                                                                                                                                                                                                                                                                                                                                                                                                                                              1328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1730
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1967
  1031
                                                                                       1091
                                                                                                                                                                                                                                                                                                                                                                      1268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1907
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1673
                                                                                                                                                                                                                               779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2027
                                                                                                                                    719
                                                                                                                                                                                                                                                                                                                                                                                                                 899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          성 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 දු පු
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                       셤
                                                                                                                                                                        g
                                                                                                                                                                                                                                                                  원
                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                             음 장
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    පු
                                          ઠે
                                                                                                                                δ
                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
```

2272 2635 2332 2692 2392 2452

2815

g ð 셤 ò

g 8

ઠ

```
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                        ద
                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                           8 8
                                                                              $ B $
                                                                                                                      원 수 원
                                                                                                                                                               상 음
                                      8 & 8
 6 6 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ardedeccarcatereceterreradadardegratrerredadadecetecete 1849
                                                                                                                                                                                                                                                                                                                                                                          1258
                                                                                                                                                                                                                                                              1018
                                                                                                                                                                                                                                                                                        1078
                                                                            1030
                                                                                                       ccaggcadeirekadenadccidededadadeccadciterareggeaccecirccagcare 1090
                                                                                                                                   1147
                                                                                                                                                             1207
                                                                                                                                                                                         1267
                                                                                                                                                                                                                    1327
                                                                                                                                                                                                                                          958
                                                                                                                                                                                                       898
                                                                                           658
                                                                                                                      718
                                                                                                                                                778
                                                               598
                                                                                                                                                                                                                                                                                                                                                                                                                  ATGGGCTCTGGAATCAGAAATCCTATTTGAGGAGCAGGACCTCCGGAAGCACGGCCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACGGGGAAGACGTCTCCTCAACATGAACATCTTCCAGAAGGACATCAACTGTG
                                                                                                                                                                                                                                                                                                                                                                                    Aggeanctigachanahaharacctititicagiccaghighceicaghaghaghaghagatha
                                                                                                                                                                                                                                                                                                                  cerccaecaccaccacrecaereracererracerecreaererearecaacceaage
                                                                                                                                                                                                                                                                                                                                                                                                      TGGAGAAGCTCCACCGTTCTGGAGCACCCCAGGCATGTGGAGATCCTTGGGCTTTCTTG
                                                                                                                                                                                                                                                                          riecasaacticarriccircrrissascascactrressaasascricassarricris
                                                                                                                                                                                                                                                                                        aggcagaaaggaaggcagacttctacaagtatttccacaatgcagagaggggggcaag
                                                                                                                                                                                                                                                                                                 TAATTGGAAGAAGTGCTGCTGAGGTATCTTTGCTCATCACCACGGCCCAGGGCTT
                                                                                                                                                                                        1208 AGCGGCTGCTCTTCATCCTCGATGGTGTAGATGAGCCAGGATGGGTCTTGCAGGAGCCGA
                                                                                                                                                            icaticagaaaaagagdacadccadcccadccantagacadatcctgcctaggcdad
                                                                                                                                                                           AGGGCTCCTTTTCATCATCGACGGCTTCGATGAGCTCAAGCCTTCTTCCACGATCCTC
                                                                                                                                                                                                       AGGGACCCTGGTGCCTCGCTGGGAGGAGAAACGGCCCACGGAGCTGCTTCTTAACAGCT
                                                                                                                                                                                                                 TCTTCTACATCAACTGCAGGGAGATGAACCAGGAGTGCCACGGAATGCAGCATGCAAGACC
                                                                                                                              TCATCTTCAGCTGGCCTGAGCCCCAGCGCGCCTCTCCCAGGAGCTCATCCGAGTTCCCG
                                                                        CACACAAGGTGATGCTGGACTGGGCGGACGGGAAGCTCTTCCAAGGCAGATTTGATTATC
                                                               CCGAGCCACCGCGCACCGTGGTCATGCAAGGCGCGGGAGTAGGCAAGTCCATGCTGG
                                     Length 4200;
                                                    Indels
                                     Score 395.8; DB 4;
Pred. No. 2.2e-95;
0; Mismatches 822;
                                      Query Match 12.7%;
Best Local Similarity 54.0%;
Matches 1060; Conservative
sapiens
                  .. (4197)
                                                                                                                                                                                                                                                                                                                                                                                                                       CATTGG-
ORGANISM: Homo
      FEATURE:
NAME/KEY: CDS
                    ; LOCATION: (1)
US-09-388-221B-3
                                                                                                                                                                                                                                                                                                                                                    1139
                                                                                                                                                                                                                                                                                                                                                                  1568
                                                                                                                                                                                                                                                                                                                                                                               1199
                                                                                                                                                                                                                                                                                                                                                                                             1628
                                                                                                                                                                                                                                                                                                                                                                                                          1259
                                                                                                                                                                                                                                                                                                                                                                                                                        1688
                                                                                                                                                                                                                                                                                                                                                                                                                                      1319
                                                                                                                                                                                                            839
                                                                                                                                                                                                                          1268
                                                                                                                                                                                                                                                    1328
                                                                                                                                                                                                                                                                               1388
                                                                                                                                                                                                                                                                                              1019
                                                                                                                                                                                                                                                                                                           1448
                                                                                                                                                                   1148
                                                                                                                                                                                                                                       668
                                                                                                                                                                                                                                                                  959
                                                                                                             1031
                                                                                                                                       1091
                                                                                                                                                                                779
                                                                                                                                                     719
                                                                    539
                                                                                               599
                                                                                 971
                                                                                                                          629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                      පු
                                                                                                                                                                                                                                                                                                                                                                                                          8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                  õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                               õ
                                                                                                                                                                                                                                                                                                                                                 6 B 6
                                                                                                                                                                                8 6
                                                                                                                                                               g
```

2815 2452 rgaadacterideddrindgergderigradeericaeagaergeagaerideaagdeerrgeer 2575 CAGCTCTCATAGCCAATAAGAATTTGACAAGGATGGATCTCAGTGGCAACGGCGTTGGAT 2272 2092 2152 TGTATGGCGCCACCTACAGCGCGCGGAACACCCGCGCGAGGTGCTCCGCAGGAGCGC 1972 2342 CCACCATGGTAGTCCTGTTCAG-----GTGGGTCCCAGTCACAGATGCCTATTGGCAGA 2395 1852 TGGAGCACATGGTCTCCTCGTCTGAAGCGCTGCAGGAGCGCCCAGGTGCTGCACT 1912 1672 TTCAGTTGAGGAAGTGTCAGAGTCCGGGGCTTGTCAGGAGATGGCTTCTGTGCTCG argetregagecaaaegeettifeeeagaegaegeegeegeegeegeege gcaccaacarcriggrigagriggaccrigacaggaargcaggagarrigggcc TCCCAGGCATGATGCTGCTTTGCGAGGCCTGCGGCATCCCCAGTGCAGGTGCAGATGA 1973 ACACGCTGTTGGTGCAGCTCAGAGCGACGGTTCTGCTGGACGCCTACAGTGAAC Arcrescancescerectaarectaarectaarectearasectistererecteraces CCTGGGGAGCCGGGGGGAAGCTGCTCTGTCAAGGACTCAGACACCCCCAACTGCAAAC TTCAGAACCTGAAGGCTGAAGAGGTGCCGCATCTCCAGCTCAGCCTGCGAGGACCTCTTG rigagatraagagacaacaagaccatagacaagatgaacaagacticaaga rccraecacaagranggcccarrrcaagaaa---rgggcargrgragaaacagaa regadetettadienecattichecattaarteaececeaedraadaaectreaec TTATCCAGCAGGCCCTGAGCCACTTCCAGGTGATCGTGGTCAGCAACATTGCCTCCAAGA CCTGCAGCAGGCTCCTTGGAGTTCTTCAGCTGCTTGTACGAGATCCAGGAGGAGGAGT TCTTGGACGAGGGGAGGCAGGCCCAGACCAGGACGTGACCAGGCTGTTGACCG rctiggagaatagaadgagagagaaagarrctaartgcarcaragartiggaaaaga GACTCCTGAACGAGGACCAGGAGCCACCTGGAGAGAGACTCTCTGCTGGAAGGTCTCGC dectroria de de la compara de la comparta del comparta del comparta de la comparta del comparta de la comparta del comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta del comparta del comparta de la comparta de la comparta de la comparta de la comparta del comparta del comparta de la comparta del comp Aège-----dAgénActitenfechértédertécercergengertéc-----TGAGGTTACTATGCCAGGGACTGAGGCACCCAGTCTGCAGACT AGTACGCGTTTTCTGAAAGGAGCTTCCT-2636 2333 2696 2393 2756 2453 2576 2396 2093 2456 2153 2516 2213 2273 2033 2189 2246 1913 2306 1733 1853 1793 1673 2087 1499 1907 1559 1961 2027

RESULT 4 US-09-388-221B-5 ; Sequence 5, Application US/09388221B

```
1498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2086
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2128
                                                                                                                         1438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2026
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2032
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2332
                                1378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2392
                                                                                                                                                                                                                                                                   1850 rgag---cracaccricarrcaccricrirricaagagricrirgcaggaargrictarg 1906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGCACATCAAGATGGACCTGTTGCAGTGGATCCAAAGCAAAGCTCAGAGCGACGGCTCCA 1732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2342 ccaccarderadrecretricae----èredereceagicacadarecerarreceaea 2395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TTCAGAACCTGAGGCTGAAGAGGTGCCGCATCTCCAGCTCAGCCTGCGAGGACCTCTCTG 2212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGAGGTACTACAGCTTCACTTGAGTTTCCAGGAATTCTTTGCAGCTATGTACTATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2246 TGGAGCTCTTAGTGTGCACTTTCTGCATTAAATTCAGCCGCCACGTGAAGAAGCTTCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2213 CAGCTCTCATAGCCAATAAGAATTTGACAAGGATGGATCTCAGTGGCAACGGCGTTGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTGGGCTGAGAGCCAACCAGACCCTGAGCTGGACCTGAGCTTCAATGTGCTCACGG
                                ATGGGCTCTGGAATCAGAAATCCTATTTGAGGAGCAGGACCTCCGGAAGCACGCCTAG
                                                                         1730 AGGCCATCTGGCAAAAAAGACCCTTTTCAGTCCAGATGACCTCAGGAAGCATGGGTTAG
                                                                                                                              ACGGGGAAGACGTCTCTGCCTTCAACATGAACATCTTCCAGAAGGACATCAACTGTG
                                                                                                                                                                         Arcecia contrator de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata del contrata de la contrata del contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata del contrata de la contrata del contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata del contrata del contrata de la contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del con
                                                                                                                                                                                                                                                                                                                        TCCTGGACGAGGGGGGGGGGGGCCCAGACCAGGACGTGACCAGGCTGTTGACCG
                                                                                                                                                                                                                                                                                                                                                                   1907 ictriciaciacianicacianicacianicanicanternariacianicanicanicani
                                                                                                                                                                                                                                                                                                                                                                                                                      AGTACGCGTTTTCTGAAAGGAGCTTCCT-----GGCACTCACCAGCCGCTTCCTGTTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   céctadaagcararidaaaracardeccretrregedecarcaaccacactrrecrarred
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GACTCCTGAACGAGGAGACCAGGAGCCACCTGGAGAAGAGTCTCTGCTGGAAGGTCTCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2087 AGGG------GAGGAACCTGATGCAGTCCCGTCCCGTCCTGCAGCTGC------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1733 CCCTGCAGCAGGCTCCTTGGAGTTCTTCAGCTGCTTGTACGAGATCCAGGAGGAGGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2129 recrecacecracreredadrecerecarecristadadenesasarana
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TTATCCAGCAGCCCTGAGCCACTTCCAGGTGATCGTGGTCAGCAACATTGCCTCCAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCCTGACACACAGTGATGACCCATTTCGAAGAAA---TGGGCATGTGTGTAGAAACAGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TOGAGCACATGGTCTCCTCGTCTGAAGCGCTGCAGGAGCGCCCCAGGTGCTGCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGTATGGCGCCACCTACAGCGCGGACGGGAAGACCGCGCGAGGTGCTCCGCAGGAGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        rearr------aggecagecageacacarcaacarcage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACACGCTGTTGGTGCAGCTCAGACCAGAGGACCGTTCTGCTGGACGCCTACAGTGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATCTGGCAGCGCCCTGTGCACCAATCCAAACCTGATAGAGCTGTCTCTGTACCGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     rrcrcrcccrcrcaagercacagaaaccrgaaggaccraagrgaagr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCCTGGGCAGCCGGGGGGAAGCTGCTCTGTCAAGGACTCAGACACCCCAACTGCAAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2516 TGGAGACCCTGCGGTTGGCTGGTGTGGCCTCACAGCTGAGGACTGCAAGGACTTGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2273 TCCCAGGCATGATGCTGCTTTGCGAGGGCCTGCGGCATCCCCCAGTGCAGGCTGCAGATGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             arecresascecaacacerrisecasascisascascesasciscaascracascea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTCAGTTGAGGAAGTGTCAGCTGGAGTCCGGGGCTTGTCAGGAGATGGCTTCTGTGCTCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1913
                                1319
                                                                                                                              1379
                                                                                                                                                                         1790
                                                                                                                                                                                                                           1439
                                                                                                                                                                                                                                                                                                                      1499
                                                                                                                                                                                                                                                                                                                                                                                                                      1559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2696
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1793
                                                                    셤
                                                                                                                                                              요
                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                 d
                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8 & 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         <u>ک</u> ۾
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                           8
                                                                              Regulation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1018
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1079 TCTTCAATTACGTGAGGACAACGAGCCTCTCTTCACCATGTGCTTCGTCCCCTGGTGT 1138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCAGGCAGGTGAAGGAAGCCTGGGGGAGAGGCCAGCTGTATGGGGACCGCTTCCAGCATG 1090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGGGGGCCCCGCGCCCCCCACCCAACCAGAGGGTTGTGCTCCTTGGCGCAG 1318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CATTGG------GACCCCAGCTCAGAGACCTCTGCTCTGGCTGGTGT 1729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1268 GTTCTGAGCTCTGTCTGCACTGGAGCCAGCCACAGGCGGGGGATGCACTGCTGGGCAGTT 1327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGGCAGAAAGGAATACTTCTACAAGTATTTCCACAATGCAGAGCAGGCGGGCCAAG 1078
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCTGGGTGGTGTGTACCTGCCTCCAGCAGCAGCTGGAGGGTGGGGGGCTGTTGAGACAGA 1198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCTGGCTGGCCTGCACTTGCCTGATGCAGCAGAAAGGGAAAAACTCACACTGA 1627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1148 TCATCGGAAAAGATGGGACAGCCACTCCGGCTCCCATTAGACAGATCCTGTCTAGGCCAG 1207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1208 Accecrecretricarecrecareareareareaceaecaearecererrecaeaecea 1267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCCAAGAACCTCGCATAGTCATACTGCAGGGGGCTGCTGGAATTGGGAAGTCAACACTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CACACAAGGTGATGCTGGACTGGGCGGACGGGAAGCTCTTCCAAGGCAGATTTGATTATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCTTCTACATCAACTGCAGGGAGATGAACCAGGGGTGCCACGGAATGCAGCATGCAAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGCGCCTCCTTTCATCATCGACGCCTTCGATGAGCTCAAGCCTTCTTTCCACGATCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGGAGAAGCTCCACCGTCTGCTGGAGCACCCCAGGCATGTGGAGATCCTGGGCTTCTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               recadaaccicarrecriteridaaccaecarerregiadaacciedegerrerei
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGTCCAGGACCACCACTGCAGTGTACATGCTCTACCTGCTGAGTCTGATGCAACCCAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCGAGCCACCGCGCACCGTGGTCATGCAAGGCGCGCGCAGGATAGGCAAGTCCATGCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1091 refrictiverreagerecadaderegecedae---recaadgreereagreereage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCATCTTCAGCTGCCTGAGCCCAGCGCGCCTCTCCAGGAGCTCATCCGAGTTCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    839 AGGGACCCTGGTGCCTCTGCTGGAGAGAAAACGGCCCACGGAGCTGCTTCTTAACAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TAATTCGGAAGAAGCTCCTCCCTGAGCTATCTTTGCTCATCACCACACGCCCACGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         criccaagaccaccaccaccicrercracarraccireccaagcrerccaagcreage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cciritaggirganarcaaacaaggiciciggcccigigircrigigcccrgggir
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                              Death
Patent No. 6818750
GENERAL INFORMATION:
APPLICANT: Reed, John C.
TITLE OF INVENTION: No. 6818750el Card Proteins Involved in Cell
FILE REFERENCE: P-LJ 3650
CURRENT APPLICATION NUMBER: US/09/388,221B
CURRENT FILING DATE: 1999-09-01
NUMBER OF SEQ ID NOS: 30
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            81;
                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 4332;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
12.7%; Score 395.8; DB 4;
Best Local Similarity 54.0%; Pred. No. 2.3e-95;
Matches 1060; Conservative 0; Mismatches 822;
                                                                                                                                                                                                                                                                   TYPE: DNA
CORGANISM: Homo sapiens
FRATURE:
NAME/KEY: CDS
LCCATION: (1)..(4332)
US-09-388-221B-5
                                                                                                                                                                                                                                                                      TYPE: DNA
ORGANISM: Homo sapiens
FEATURE:
                                                                                                                                                                                                                                               4332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1568
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Б
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ठे
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠ
```

ò 셤 ò 셤

```
ATCTGGCAGCGCCCTGTGCACCAATCCTGATAGAGCTGTCTCTGTACCGAAATG 2092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ccriogical de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra dela contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra dela contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2153 TICAGAACCTGAGGCTGAAGAGGTGCCGCATCTCCAGCTCAGCCTGCGAGGACCTCTCTG 2212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   rccigacacadasideccedarirogasdaaa---regecarereradaaadagada 2245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ricia de contrador de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada del la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada del contrada del contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la contrada de la
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGTATGGCGCCACCTACAGCGGGAACGGGGAAGACGCGCGAGGTGCTCCGCAGGAGCGC 1972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACACGCTGTTGGTGCAGCTCAGACCAGAGGACCGTTCTGCTGGACGCCTACAGTGAAC 2032
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGCACATCAAGATGGAACCTGTTGCAGTGGAAAGCAAAGCTCAGAGGGACGACGGCTCCA 1732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1379 ACGGGGAAGACGICICTCCICCACAIGAACAICTICCAGAAGGACAICAACIGIG 1438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGAGGTACTACAGCTTCATCCACTTGAGTTTCCAGGAATTCTTTGCAGCTATGTACTATA 1498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCCTGGACGAGGGGGGGGGGCGGGCCCAGACCAGGACGTGACCAGGCTGTTGACCG 1558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1907 İCTIĞAĞAĞATĞAĞAĞAĞAĞAĞAĞATAAÇATTCTAÄTTĞÇATÇATAĞATTİĞGAAÂAĞA 1966
     1138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cecrachaecararecarescererrescecarcaecarcaecarecaecarrecraries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GACTCCTGAACGAGGAGCCAGCACCTGGAGAAGAGTCTCTGCTGGAAGGTCTCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        nggagcacaracgrerecreerrergrangerecreesagageececaggreererr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2342 ccaccarderadrecrerricag-----dresereceagicaeadardecrara
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTATCCAGCAGGCCCTGAGCCACTTCCAGGTGATCGTGGTCAGCAACATTGCCTCCAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1319 ATGGGCTCTGGAATCAGAAAATCCTATTTGAGGAGCAGGACCTCCGGAAGCACGCCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGTACGCGTTTTCTGAAAGGAGCTTCCT----GGCACTCACCAGCCGCTTCCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1733 CCCTGCAGGGGCTCCTTGGAGTTCTTCAGCTGCTTGTACGAGATCCAGGAGGAGGAGT
TCTTCAATTACGTGAGGGACAACGAGCCTCTTCTTCACCATGTGCTTCGTCCCCCTGGTGT
                                                                                                                                                                                                 criccaagaccaccaccaccrerereracarracerreceagererecaagereage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1790 Arciciocarcarcarcaccaricarica a de a deservaria de a deservarica de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio de a recipio 
                                                                                                ccirinággingárcaaatcaaacaagcicrigaggccicrigigircrigigcccngggrgi
                                                                                                                                                                                                                                                                                                                                                                                                  CGTCCAGGACCACCACTGCAGTGTACATGCTCTACCTGCTGAGTCTGATGCAACCCAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1613
                                                                                                               1508
                                                                                                                                                                                                                                                                                                                 1568
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1439
                                                                                                                                                                                                                     1139
                                                                                                                                                                                                                                                                                                                                                                                                                 1199
                         1079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8 6 6 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   д
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                           g
                                                                                                                                                                                       8 &
                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
APPLICANT: Reed, John C.
TITLE OF INVENTION: No. 6818750el Card Proteins Involved in Cell Death Regulation
FILE REFERENCE: P.LJ 3650
CURRENT APPLICATION NUMBER: US/09/388,221B
CURRENT FILING DATE: 1999-09-01
NUMBER OF SEQ ID NOS: 30
SOFTWARE: PATENTIN Ver. 2.0
SOFTWARE: PATENTIN Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                recregedababacraractricceagecarccrrccrearcacecregeaceacacacre 1387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                riccializacito de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata del contrata del contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata del contrata del contrata de la contrata de la contrata de la contrata de la contrata del contrata del contrata de la contrata de la contrata de la contrata del contrata de la contrata de la contrata de la contrata del contrata de la contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata del contrata d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        rcrichacricacriscadadaderidecedad---recaaderedadereredade 1147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCAGGCAGGTGAAGGCAAGCTGGGGGAAGGCCACCTGTTTGGGACCGCTTCCAGCATG 1090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1208 AGCGGCTGCTCTTCATCCTCGATGGTGTAGATGAGCCAGGATGGGTCTTGCAGGAGCGA 1267
                              GCACCAACCCACATCTGGTTGAGTTGGACCTGACAGGAAATGCACTGGAGGATTTGGGCC 2452
                                                                                                                               2815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  958
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CACACAAGGTGATGCTGGACTGGGCGGACGGGAAGCTCTTCCAAGGCAGATTTGATTATC 658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1148 rchrcegaaaagareddacadccadrcceddrcharadacadarddarcharadadda
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TAAȚTCGGAAGAAGCTGCTCCCTGAGCTATCTTTGCTCATCACCACACGGCCCACACGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCATCTTCAGCTGGCCTGAGCCCAGCGCGCTCTCCAGGAGCTCATCCGAGTTCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGCGCCTCCTTTTCATCATCGACGGCTTCGATGAGCTCAAGCCTTCTTTCCACGATCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      839 AGGGACCCTGGTGCCTCTGGGAGAGAAACGGCCCACGGAGCTGCTTTAACAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1268 GITCIGAGCICIGICIGCACIGGAGCCACAGCCACGGCGGAIGCACIGCIGGGCAGII
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGGAGAAGCTCCACCGTCTGCAGCACCCCAGGCATGTGGAGATCCTGGGCTTCTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ccciagaaccroscarastcaracreciaededederecredaarrededaderededede
                                                                                                     CCGAGCCACCGCGCACCGTGGTCATGCCAGGCGCGGGGATAGGCCAAGTCCATGCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCTTCTACATCAACTGCAGGGAGATGAACCAGAGTGCCACGGAATGCAGCATGCAAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              81;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; OTHER INFORMATION: Description of Artificial Sequence: Synthetic; CTHER INFORMATION: Construct US-09-388-221B-11
                                                                                                                                                                                                                                                                                       Length
                                                                                                                                                                                                                               TGAGGTTACTATGCCAGGGACTGAGGCACCCAGTCTGCAGACT 2495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 395.8; DB 4;
Pred. No. 2.3e-95;
0; Mismatches 822;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 11, Application US/09388221B
Patent No. 6818750
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 12.7%;
Best Local Similarity 54.0%;
Matches 1060; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: DNA
ORGANISM: Artificial Seguence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME/KEY: CDS
LOCATION: (1)..(4272)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENGTH: 4466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1091
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     599
                                                                                                                                         2756
                                                                                                                                                                                                                                         2453
                                                                                                                                                                                                                                                                                                                                     2816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURE
```

셤

à

g à

δ

요 장 쉱 ò g 8 셤 ŝ g ò

엄

ò

ö

```
2090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2510
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2750
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2870
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2930
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1022
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2931 TTACCTGACCAACAACGCCCTAGGGGACACAGGTGTCCGACTGCTTTGCAAGCGGCTGAG 2990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     243 GATCCAGAAAGCTCAGCCTGCAGAACTGCTCCCTGACCGAGGCGGGCTGCGGGGTCCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             303 CAGCACGCTGCGCTGCCCACGCTGCGGGAGCTGCATCTCAGCGACAACCCACTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2271 ATTCCCAGGCATGATGCTGCTTTGCGAGGGCCTGCGGGCATCCCCAGTGCAGGCTGCAGAT
                                                                                                                                                                                                                                                                                                                               1971 GCACACGCTGTTGGTGCAGCTCAGACCAGAGAGACCGTTCTGCTGGACGCCTACAGTGA
                                                                                                                                                                                                                                                                                                                                                                                                           63 GCTCCAGCAGTATGAGGTGAGGTCAGGCTCGACGACTGCGGCCCTCACGGAGGAGCACTGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2031 ACATCTGGCAGGGCCCTGTGCACCAATCCAAACCTGATAGAGCTGTCTCTGTACCGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       123 ggacarcegerrerecereceseceaeceaecerecereaeceaecrerecereceae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2091 TGCCCTGGGCAGCCGGGGGTGAAGCTGCTCTGTCAAGGACTCAGACACCCCCAACTGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   183 ceaecresecearecesecreserecreserecasesecerecasesecerecases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2151 ACTICAGAACCTGAGGCTGAAGAGGTGCCGCATCTCCAGCTCAGCCTGCGAGGACCTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGACGCCGGCCTGCGGCTCTGTGAGGGGCTCCTGGACCCCCCAGTGCCACCTGGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GATTCAGTTGAGGAAGTGTCAGCTGGAGTCCGGGGCTTGTCAGGAGATGGCTTCTGTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          derrecadririo de agració de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra de contra d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGGCACCCACCCACATCTGGTTGAGTTGGACCTGACAGGAATGCACTGGAGGATTTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          483 CAGGGCCACGCGGGCCTTGAAGGAGCTCACGGTGAGCAACAACGACATCGGCGAGGCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCTGAGGTTACTATGCCAGGGACTGAGGCACCCAGTCTGCAGACTACGGACTTTGTGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2511 GAAGATCTGCCGCCTCACTGCTGCTGTGACGAGCTGGCCTCAACTCTCAGTGTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      603 GGAGAACTGCGGTCTCACGCCAGCCAACTGCAAAGACCTGTGCGGAATTGTGGCCTCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2571 CCAGAGCCTGAGAGAGGCTGGACCTGAGCCTGAATGAGCTGGGGGACCTCGGGGGTGCTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 663 GGCCTCGCTGAGGGAGCTTGACCTGGGCAGCAACGGGCTGGGCGACGCGGGCATAGCCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCTGTGTGAGGCCTCAGGCATCCCACGTGCAAGCTCCAGACCCTGCGGGTTGGGCATCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             723 derighécecedésererréassecéceserecesecricas de respecteres de de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2691 CCGCTGGGCTCTGCCGCCTGTGAGGTCTTTCTGTGGTGCTCCAGGCCAACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                783 TGACATCACCCCAGTGGCTGCAGAGACCTCTGCCGTGTCCTCCAGGCCAAGGAGACCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGGGCTGCAACATCCCGCCTGCAGACTCCAGAAACTGTGGCTGGATAGCTGTGGCCTCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAGCCTGCTGCAGCCCGGCTGCCAGCTGGAGTCCCTGTGGGTGAAGTCCTGCAGCCTCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Geceeccrecreccaecaccrecricarecreaccaaacaacarcrecreaaacr
                                                                                                                                                                                                                                               Gape.
                                                                                                                                                                                                                                               ö
                                                                                                                                                               Length 1371;
                                                                                                                                                               Score 299; DB 2; Length 13
Pred. No. 1.1e-69;
0; Mismatches 510; Indels
                                                                                                                                                               Query Match 9.6%;
Best Local Similarity 54.3%;
Matches 605; Conservative
                                          1..1368
; NAME/KEY:
; LOCATION:
US-08-910-731-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2811
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2631
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         903
                                                                                                                                                                                                                                                                                                                                                                                                           유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2452
                                 regadaccirecerregerrescrierescricacaecreaesacriecaaseaccirecer 2575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2755
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
APPLICANT: CHATTERJEE, DEB K.
APPLICANT: SHANDILYA, HARINI
TITLE OF INVENTION: Mammalian Ribonuclease Inhibitors and Use Thereof
NUMBER OF SEQUENCES: 16
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2756 GTGCCAGCCCAGCCTGAAGGAGCTAGACCTGCAGAACAACAACCTGGATGACGTTGGCG
                                                                                                                     CAGCTCTCATAGCCAATAAGAATTTGACAAGGATGGATCTCAGTGGCAACGCCGTTGGAT
                                                                                                                                                                                    TTGGGCTGAGGCCAACCAGACCTGACCGAGCTGGACCTGAGCTTCAATGTGCTCACGG
                                                                                                                                                                                                                                                                                 2273 TCCCAGGCATGATGCTGCTTTGCGAGGCCTGCGGCATCCCCCAGTGCAGGCTGCAGATGA
                                                                                                                                                                                                                                                                                                                                                    ATGCTGGAGCCAAACACCTTTGCCAGAGACTGAGACAGCCGAGCTGCAAGCTACAGCGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTCAGTTGAGGAAGTGTCAGCTGGAGTCCGGGGCTTGTCAGGAGATGGCTTCTGTGCTCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCACCAACCCACATCTGGTTGAGTTGGACCTGACAGGAAATGCACTGGAGGATTTGGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGAGGTTACTATGCCAGGGACTGAGGCACCCAGTCTGCAGACT 2495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                recearcretrefesesecresecarecrectesari 2858
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADDRESSEE: STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C. STREET: 1100 NEW YORK AVE., N.W., SUITE 600 CITY: WASHINGTON STATE: D.C. COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: BEM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN Release #1.0, Version #1.30
CURRENT APPLICATION DATA: US/08/910,731
FILING DATE: (Herewith)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CLASSIPTCATION: 435
PRIOR APPLICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/795,395
FILING DATE: 04-FEB-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/794,546
FILING DATE: 0-FEB-1997
PRIOR APPLICATION NUMBER: 06/024,057
PRIOR APPLICATION NUMBER: 06/024,057
PRIOR APPLICATION NUMBER: 06/024,057
PRIOR APPLICATION NUMBER: 32,893
REGISTRATION NUMBER: 32,893
REGISTRATION NUMBER: 32,893
REGISTRATION NUMBER: 0942.344
TRIECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 6
US-08-910-731-1
; Sequence 1, Application US/08910731
; Patent No. 593240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEPAX: 202-371-2540
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1371 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: nucleic acid
STRANDENNESS: both
TOPOLOGY: both
MOLECULE TYPE: CDNA
FEATURE:
                                                                                                                     2213
                                                                                                                                                                                                 2576
                                                                                                                                                                                                                                                                                                                                                                 2636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2816
                                                                                                                                                                                                                                                                                                                                                                                                                                                 2333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2696
                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                         원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                     ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
```

422

602

842

ug-10-781-294-23.rni

요 ò g

유 ò

```
TTACCTGACCAACACGCCCTAGGGGACACAGGTGCCGACTGCTTTGCAAGCGGCTGAG 2990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCATCCTGGCTGCAAACTCCGGAGTCCTCTGGTTATTTGGGATGGACCTGAATAAAATGAC 3050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         963 gelegecrgeriecekeckerreneerraktraktrecreaakakakearereerakaer 1022
                                                                                                                                                                                                                                                                                                                                                                                                                                             GAAGATETGCCGCCTCACTGCTGCTGTGACGAGCTGGCTCAACTCTCAGTGTGAA 2570
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       903 GAGCCTGCAGCCCGGCTGCCAGCTGGAGTCCCTGTGGGTGAAGTCCTGCAGCCTCAC 962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       rcagrigagcagcaacaagcigggrgactcrggcarccaggagcigigcgggg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ceccederacticadectaddaretraccaacticactadeagaaacteagaaact
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2571 CCAGAGCCTGAGAGCTGGACCTGAGCCTGAATGAGCTGGGGGACCTCGGGCTGCTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            663 geceregeridaksedakerindakeridsedasedaksederidsededakesaraksesea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2631 gengrendadgecencadgearceccacgeaecteccagacecrigecgerrece
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1691 CCGGCTGGGGCTCTGTGAGGGTCTTTCTGTGGTGCTCCAGGCCAACCACAACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         783 TGACATCACCGCCAGTGGCTGCAGAGACCTCTGCCGTGTCCTCCAGGGCCAAGGAGACCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           843 gaaddahcricagroridgoggcaachacaagcroddogaddaagddogogogdoridcridrogda
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2811 gegegriccaccarcerecacarcecacaracerecacaracerecaracere
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            303 cagcadedrecentécrececatecradeses de recado de caracidades de caracidades
                                                                                                                                                                                  2271 ATTCCCAGGCATGATGCTGCTTTGCGAGGCCTGCGGCCATCCCCAGTGCAGGCTGCAGAT
                                                                                                                                                                                                   363 GGACCCCGGCCTGCTGCTGTGAGGGCTCCTGGACCCCCCAGTGCCACCTGGAGAA
                                                                                                                                                                                                                                                GATTCAGTTGAGGAAGTGTCAGCTGGAGTCCGGGGCTTGTCAGGAGATGGCTTCTGTGCT
                                                                                                                                                                                                                                                                                                                CGGCACCAACCCACATCTGGTTGAGTTGGACCTGACAGGAAATGCACTGGAGGATTTGGG
                                                                                                                                                                                                                                                                                                                                               cadegecchacedegecerridaagdahderreacegridageaacaacaacaredgeddaggecdd
                                                                                                                                                                                                                                                                                                                                                                                CCTGAGGTTACTATGCCAGGGACTGAGGCACCCAGTCTGCAGACTACGGACTTGTGGGCT
                                                                               2151 ACTICAGAACCIGAGGCIGAAGAGGIGCCGCAICICCAGCICAGCCIGCGAGAACCICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCACAGTAGGTTGGCAGCGCTTCGAGTAACAAAAC 3085
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         creckéckácricécricéchechechack 1177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-08-910-731-7; Sequence 7, Application US/08910731; Sequence 7, Application US/08910731; Patent No. 5932440; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3051
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2931
                                                                                                                                                                                                                                                            2331
                                                                                                                                                                                                                                                                                                                            2391
                                                                                                                                                                                                                                                                                                                                                           483
                                                                                                                                                                                                                                                                                                                                                                                                                                                         2511
                                                                                                                                                                                                                                                                                                                                                                                           2451
                                                                                                                                                                                                                                                                                                                                                                                                                           543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        원
                                                                                                                                                      쉱
                                                                                                                                                                                          ò
                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                              ò
                                                            ò
                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2091 TGCCCTGGGCAGCCGGGGGGTGAAGCTGCTCTGTCAAGGACTCAGACACCCCAACTGCAA 2150
                                                                CCATCCTGGCTGCAAACTCCGGAGTCCTCTGGGTTTTTGGGATGGACCTGAATAAAATGAC 3050
                                                                                                123 ggácarcigerréredectreceggechánederrendentergetreredenda
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1971 GCACACGCTGTTGGTGCAGCTCAGAGAGGACCGTTCTGCTGGACGCCTACAGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     derecadeadrardadardaredederedacarededeecreaeddadadacaerdead
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACATCTGGCAGCGCCCTGTGCACCAATCCAAACCTGATAGAGCTGTCTCTGTACCGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 1371;
                                                                                                                                                                                                                                                                                             APPLICANT: CHATTERJEE, DEB K.
APPLICANT: SHANDILYA, HARINI
TITLE OF INVENTION: Cloning and Expression of Rat Liver a
TITLE OF INVENTION: Porcine Liver Ribonuclease Inhibitor
NUMBER OF SEQUENCES: 8
CORRESPONDENCE ADDRESS:
ADDRESSE: STERNE, KESSLER, GOLDSTEIN & FOX, P.L.L.C.
STREET: 1100 NEW YORK AVE., N.W., SUITE 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 299; DB 2; Length 13
Pred. No. 1.1e-69;
0; Mismatches 510; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Version #1.30
                                                                                                                                                                  creckéckácricécricécricriecriescokacc 1177
                                                                                                                                       CCACAGTAGGTTGGCAGCGCTTCGAGTAACAAAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REGISTRATION NUMBER: 32,893
REGISTRATION NUMBER: 32,893
REFERENCE/DOCKET NUMBER: 0942.3440002
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-371-2600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ZUP: ACCOUNTS: COMPOUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: ISN PC compatible
COMPUTER: ISN PC compatible
COMPUTER: ISN PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN Release #1.0, Ve
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/795,395
FILING DATE: 04-FEB-1997
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:
APPLICATION NUMBER: 60/024,057
FILING DATE: 16-AUG-1996
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                  Sequence I, Application US/08795395
Patent No. 5965399
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEPAX: 202-371-2540
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9.6%;
ilarity 54.3%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1371 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1..1368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              al Similarity
605; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    both
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TOPOLOGY: bo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                , NAME/KEY:
, LOCATION:
US-08-795-395-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                       STATE: D
                                                                                                                                                                                                                             RESULT 7
US-08-795-395-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local
                                                                                                                                            3051
                                             1023
                                                                            2991
                                                                                                           1083
                                                                                                                                                                           1143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŝ
```

ð

2810

2750

2690

2630

662

2450

542

2270

302

2330

362

2390

482

2510

```
VS-04-910-731-5

Sequence 5, Application US/08910731

Sequence 5, Application US/08910731

Partent No. 5932440

Patent No. 5932440

Patent No. 5932440

APPLICANT: CHATTERJEE, DEB K.

APPLICANT: CHATTERJEE, DEB K.

APPLICANT: CHATTERJEE, DEB K.

APPLICANT: CHATTERJEE, DEB K.

APPLICANT: CHATTERJEE, DEB K.

APPLICANT: CHATTERJEE, DEB K.

APPLICANT: CHATTERJEE, DEB K.

APPLICANT: APPLICANT: ARMamalian Ribonuclease Inhibitors and Use Thereof

NUMBER OF SEQUENCES: 16

CORRESPONDENCE ADDRESS:

STREET: 1100 NEW YORK AVE., N.W., SUITE 600

STATE: D.C.

COUNTRY: USA

COUNTRY: USA

COMPUTER READABLE FORM:

MEDIUM TYPE: Ploppy disk

COMPUTER: IBW PC Compatible

COMPUTER: IBW PC Compatible

COMPUTER: PC-DOS/MS-DOS
    2390
                                                                                                                                                                                  2450
                                                                                                                                                                                                                                                                                                                                                                         2510
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2570
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2750
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2870
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1022
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1083 CCAGCCTGGCTCTGTGCTGCGGGTGCTCTGGTTGGCCGACTGCGATGTGAGTACCAGCAG 1142
                                                                                                                                                                                                                                                                                                                                                                                                                                                           602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                783 TGGCATCACTGCCAAGGGCTGCGGGGATCTGTGCCGTGTCCTCAGGGCCAAGGAGAGGCCT
2331 GATTCAGTTGAGGAAGTGTCAGCTGGAGTCCGGGGCTTGTCAGGAGATGGCTTCTGTGCT
                                                                                                                                                                                  CGGCACCAACCCACATCTGGTTGAGTTGGACCTGACAGGAAATGCACTGGAGGATTTGGG
                                                                                                                                                                                                                                                                        483 CAGGGCCACGCGGGCCTTGAAGGAGCTCACGGTGAGCAACAACGACATCGGCGAGGCCGG
                                                                                                                                                                                                                                                                                                                                                                    CCTGAGGTTACTATGCCAGGGACTGAGGCACCCAGTCTGCAGACTACGGACTTTGTGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAAGATCTGCCGCCTCACTGCTGCTGTGACGACGCTGGCCTCAACTCTCAGTGTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  603 GGAGAACTGCGGTCTCACGCCAACTGCAAAGACCTGTGCGGAATTGTGGCCTCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2571 CCAGAGCCTGAGAGAGCTGGACCTGAGCCTGAATGAGCTGGGGGGACCTCGGGGTGCTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    663 GGCCTCGCTGCGGGAGCTGGCCCTGGGCAACAACAAGCTGGGTGATGTGGGCATGGCGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCTGTGTGAGGGCCTCAGGCATCCCACGTGCAAGCTCCAGACCCTGCGGTTGGGCATCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      723 écrerécceadecrecrecacececeaegerecades de la desentación de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de la defensión de
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           gaaddadcreaccrececcadaddadcrececareaddrececarececareadrererer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2811 GGGGCTGCAACATCCCGCCTGCAGACTCCAGAAACTGTGGCTGGATAGCTGTGGCCTCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      daccendenceaacendecidecagendaagencerendaageneengaageneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneengeneeng
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  963 AGCCGCCTGCTGCCCCCACTTCAGCTCAGTGCTGGCCCAGAACAGGTTTCTCCTGGAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2931 TTACCTGACCAACAACGCCCTAGGGGACACACGGTGTCCGGACTGCTTTGCAAGCGGCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1023 ACAGATAAGCAACAACAAGCTGGAGGATGCGGGCGTGCGGGAGCTGTGCCAGGGCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCATCCTGGCTGCAAACTCCGAGTCCTCTGGTTATTTGGGATGGACCTGAATAAAATGAC
                                                                                      423 GCTGCAGTTGGAGTACTGCCGCCTGACGCCCGCCAGCTGCGAGCCCCCTGGCCTCGGTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCACAGTAGGTTGGCAGC 3068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1143 creckéckécrececes 1160
                                                                                                                                                                                                                                                                                                                                                                         2451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2631
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2991
                                                                                                                                                                                  2391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3051
                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2151 ACTICAGAACCIGAGGCTGAAGAGGTGCCGCAICTCCAGCTCAGCCTGCGAGGACCTCTC 2210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2271 ATTCCCAGGCATGATGCTGCTTTGCGAGGCCTGCGGCATCCCCAGTGCAGGCTGCAGAT 2330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   363 GGACGCCGGCCTGCGGCTCTGTGAGGGGCTCCTGGACCCCCCAGTGCCACCTCGGAGAA 422
                                                                   TITLE OF INVENTION: Mammalian Ribonuclease Inhibitors and Use Thereof NUMBER OF SEQUENCES: 16 CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1971 GCACACGCTGTTGGTGCAGCTCAGACCAGAGAGCGCTTCTGCTGGACGCCTACAGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCTCCAGCAGTATGAGGTGAGGTCAGGCTCGACGACGTCACGGAGGAGGAGCACTGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2031 ACATCTGGCAGCGCCCTGTGCACCAATCCAAACCTGATAGAGCTGTCTCTGTACCGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2091 TGCCCTGGGCAGCCGGGGGGGGAAGCTGCTCTGTCAAGGACTCAGACCCCCAACTGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                243 GATCCAGAAGCTCAGCCTGCAGAACTGCTCCCTGACCGAGGGGGGCTGCGGGGTCCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                123 GGACATCGGTTCTGCCCTCCGGGCCAACCCTCCCTGACCGAGCTCTGCCTCCGCACCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              183 CGAGCTGGGCGATGCCGGCGTGCACCTGGTGCTGCAGGGCCTGCAGAGCCCCACCTGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  303 cagcacectectrecereceaegeriecegaseriecarereaegacaeaeaeaeae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 1371;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                   : STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
1100 NEW YORK AVE., N.W., SUITE 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9.4%; Score 293.2; DB 2;
54.2%; Pred. No. 3.8e-68;
tive 0; Mismatches 503;
                                                                                                                                                                                                                                                                                                                                                                                                                                       ZIP: 20005-3934

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBW PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Ve:
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/910,731
FILING DATE: (Herewith)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 08/795,395
FILING DATE: 04-FEB-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/794,546
FILING DATE: 03-FEB-1997
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: 60/024,057
FILING DATE: 16-AUG-1996
ATTORNEY/AGENT INFORMATION:
NAME: ESMOND, ROBERT W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REGISTRATION NUMBER: 32,893
REFERENCE/DOCKET NUMBER: 0942
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-371-2600
TELEFAX: 202-371-260
INFORMATION FOR SEQ ID NO: 7:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1371 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 9.4
Best Local Similarity 54.2
Matches 595; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CLASSIFICATION: 435
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: nucleic acid
STRANDEDNESS: both
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TOPOLOGY: both
MOLECULE TYPE: CDNA
                                                                                                                                                                                                                                                                                                               WASHINGTON
                                                                                                                                                                                                                        ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                               COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-08-910-731-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    63
```

a

ઠે ద ò

ઠે

셤

g ઠે 요

ઠે

923

2825

```
US-US-JU-/31-3

Sequence 3, Application US/08910731

Sequence 3, Application US/08910731

Patent No. 5932440

GENERAL INFORMATION:

APPLICANT: CHATTERJEE, DEB K.

APPLICANT: SHANDILYA, HARINI

TITLE OF INVENTION: Mammalian Ribonuclease Inhibitors and Use Thereof

NUMBER OF SEQUENCES:

ADDRESSE:

ADDRESSE:

ADDRESSE:

ADDRESSE:

ADDRESSE:

ADDRESSE:

ADDRESSE:

CONTRY:

NASHINGTON

STATE:

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COMPUTER: Dec.

COM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2946 GGCCCTAGGGGACACAGGTGCGACTGCTTTGCAAGCGGCTGAGCCATCCTGGCTGCAA 3005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2826 cecciecadacirccadanacieregeriegarageregecercacacecaacecrierea 2885
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1104 rigacircroracirecogoracireriostriosecoacticearroradadadadacagerideag 1163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1164 CAGCCTCGCCGCAACCCTATGGCCAACCACACGCTGCGTGAGCTGGACCTCAGCAACAA 1223
                                                                                                                                                                                                                                                                                                                                                                                                                                                          crecricacrecreaticacercadidecreacadacacerretecredadecracada 1043
                                                                                                                                                                                                                                                                                                                                                                      1044 akicraciakicagoʻridgagdargcigdigidigidigidiging cakiddigidigidi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2646 CAGGCATCCCACGTGCAAGCTCCAGACCCTGCGGTTGGGCATCTGCCCGGCTGGGCTTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2766 GAGTITCAACGACCTGGGAACATGGGCCTGTGGTTGCTGGCTGAGGGGCTGCAACATCC
                                                                                                                                                                                                                                                                         924 gcrigsaactroccristcaactroaagrtectrorgaagrectrocaderec
                                                                                             864 dcircagccirdecceggalactadectedeses areas de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de constructor de con
GCTGGACCTGAGCCTGAATGAGCTGGGGACCTCGGGGTGCTGCTGTGTGAGGGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 16-AUG-1996
ATTORNEY/AGENT INFORMATION:
NAME: ESKNOND KOBERT W.
REGISTRATION NUMBER: 32,893
REFERENCE/DOCKET NUMBER: 0942.3440003
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE: 03-FEB-1997
PRIOR APPLICATION NUMBER: 60/024 ner
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/795,395
PILING DATE: 04-FEB-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/794,546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3006 ACT 3008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1284 CCT 1286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 10
US-08-910-731-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1224
                                  2586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      984
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                         ₽
                                                                                                            셤
                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2406 TCTGGTTGAGTTGGACTGACAGGAAATGCACTGGAGGATTTGGGCCTGAGGTTACTATG 2465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2346 GIGICAGCIGGAGICCGGGGCIIGICAGGAGAIGGCIICIGIGCICGGCACCAACCCACA 2405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2045
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGGGGTGAAGCTGCTGTCAAGGACTCAGACACCCCAACTGCAAACTTCAGAACCTGAG 2165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        624 criccegrericacarcriccededaccricrecegearrerescriccianges
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    264 dakdcirdkdcircckdkacrdcirdcirdacdddddcirdcddddrcirdrcaddd 323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            324 ACTACGCÁCCTGCCACCTGCAGGÁGCTGCACCTCAGCGACAACCTCTTGGGGGATGC 383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CACTGCTGCTGTGTGACGTGGCCTCAACTCTCAGTGTAACCAGAGCCTGAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCAGGGACTGAGGCACCCAGTCTGCAGACTACGGACTTTGTGGCTGAAGATCTGCCGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     744 CCCAGGGCTGCTCCACCCCAGCTCCAGGACCCTGTGGATCTGGGAGTGTGGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2286 GCTGCTTTGCGAGGGCCTGCGGCATCCCCAGTGCAGGCTGCAGATGATTCAGTTGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               384 dedecrideaderderetendeadereteradaeeteeeeerdaadaadeerdea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               gergaagagergececarerceaecrecegageaecreceaecreceaege
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  derideadrarrideadecretegecreteaderdeadeceteraderetedraciteadede
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAATAAGAATTTGACAAGGATGGATCTCAGTGGCAACGGCGTTGGATTCCCAGGCATGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             504 characcionaricang canactrande canachacar cana canacada caracteras con canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada canacada c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2046 CCTGTGCACCAATCCTGATAGAGCTGTCTCTGTACCGAAATGCCCTGGGCAGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1986 GCAGCTCAGACCAGAGGACCGTTCTGCTGGACGCCTACAGTGAACATCTGGCAGCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 1386;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 272.6; DB 2;
Pred. No. 1.3e-62;
0; Mismatches 469;
         Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0942.3440003
                                                                                                                                                                                          CLASSIFCATION 435
PRIOR APPLICATION 1435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/795,395
FILING DATE: 04-FEB-1997
PRIOR APPLICATION NUMBER: 08/794,546
FILING DATE: 03-FEB-1997
PRIOR APPLICATION NUMBER: 06/024,057
FILING DATE: 16-AUG-1996
ATTORNEY AGENT INFORMATION:
NAME: ESMOND, ROBERT W.
REGISTRATION NUMBER: 32,893
REFERENCE/DOCKET NUMBER: 0942.344
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            INFORMATION FOR SEQ ID NO: 5: SEQUENCE CHARACTERISTICS: LENGTH: 1386 base pairs TYPE: nucleic acid STRANDEDNESS: both
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8.8%;
54.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 54.2'
Matches 554; Conservative
                                                                                                                                                   (Herewith)
                                                                    CURRENT APPLICATION DATA: US APPLICATION NUMBER: US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TOPOLOGY: both
MOLECULE TYPE: CDNA
US-08-910-731-5
                                                                                                                                                                       FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
```

g

ò

g ò g ò

ò

à

ద ò ద

셤

ઠે

셤

ઠ

g

ઠ

유

ઠે

요

ò

엄

ð

셤

ઠ g 8

ઠે

g

8

8

g

ò

셤

ò

요

ઠે

```
1209 CTGCATGGGGGACAACGGTGTCCTACAACTGCTGGAGAGCCTCAAACAGCCCAGCTGCAT 1268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCAGCTCAGACCAGAGGACCGTTCTGCTGGACGCCTACAGTGAACATCTGGCAGCGGC 2045
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGCCTGCAGACTCCAGAAACTGTGGCTGGATAGCTGTGGCCTCACAGGCCAAGGCTTGTGA
                                                                                                                 1149 CAGCCTTGCCACTGTCCTGCTGGCCAACCGCAGCTTGAGGAACTGGACCTCAGTAACAA
                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GENERAL INFORMATION:
APPLICANT: CHATTERJEE, DEB K.
APPLICANT: SHANDLIVA, HARINI
TITLE OF INVENTION: Cloning and Expression of Rat Liver and
TITLE OF INVENTION: Porcine Liver Ribonuclease Inhibitor
NUMBER OF SEQUENCES: 8
CORRESPONDENCE ADDRESS:
ADDRESSEE: STERNE, KESSLER, GOLDSTEIN & FOX, P.L.L.C.
STREET: 1100 NEW YORK AVE., N.W., SUITE 600
STATE: D.C.
STATE: D.C.
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 256.6; DB 2; Length
Pred. No. 2.4e-58;
0; Mismatches 499; Indel8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                    3006 ACTCCGAGTCCTCTGGTTATTTGGGATGGACCTGA 3040
                                                                                                                                                                                                                                                                                                                                                1269 ccircagcagcircrcrciaraigacairracrgga 1303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0942.3440002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CLASSIFICATION: 435
CLASSIFICATION: 435
PRIOR APPLICATION DATA: 00/024,057
PTLING DATE: 16-AUG-1996
ATTORNEY/AGENT INFORMATION:
NAME: ESMOND, ROBERT W.
REGISTRATION NUMBER: 32,893
REPERENCE/DOCKET NUMBER: 0942.34
TELEPONE: 202-371-2600
TELEPAX: 202-371-2500
INFORMATION FOR SEC ID NO: 3:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/795,395
FILING DATE: 04-FEB-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                         US-08-795-395-3
; Sequence 3, Application US/08795395
; Patent No. 5965399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CDS
1..1368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ZIP: 20005-3934
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       both
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY: bo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Simi
Matches 556;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; NAME/KEY:
; LOCATION:
US-08-795-395-3
                        2826
                                                                                                                 2886
                                                                                                                                                                                                        2946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1986
                                                                                                                                                      g
                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1029 dadcadcaacccccrcccacacrccccacacrccrccaccrrrccaaccccrccccrcccrarcc 1088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCTGTGCACCAATCCAAACCTGATAGAGCTGTCTCTGTACCGAAATGCCCTGGGCAGCCG 2105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGGGGTGAAGCTGCTCTGTCAAGGACTCAGACACCCCAACTGCAAACTTCAGAACCTGAG 2165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2346 GIGICAGCIGGAGICCGGGGCTIGICAGGAGAIGGCTICIGIGCICGGCACCAACCCACA 2405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  969 CTCTTGTCCCCACTTCTGCTCGGTGTTGACCAAAACAGTTCTCTGTTTGAGTTGCAAAT 1028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         896
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 848
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       369 AGGCCFGAAGCTGCTCTGTGAAGGACTCCGGGACCCCCAGTGCCGTCTTGAGAAGCTTCA 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      549 CACTCTGTGCCAGGGCCTGAAGGATTCTGCCTGTCAACTGGAGTCACTCAAACTGGAGAA 608
                                                                                                                                                                                                                                                                                                                                                                                                                                                               309 GCTGCGCTCTTTGTCTACCCTGAACTACATCTCAATGACAACCCTCTGGGGGATGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2166 GCTGAAGAGGTGCCGCATCTCCAGCTCAGCCTGCGAGGACCTCTCTGCAGCTCTCATAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 429 GTTGGAATACTGTAACCTCACAGCTACCAGCTGCGAGCCCCCTGGCTCAGTGCTCAGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2226 CAATAAGAATTTGACAAGGATGGATCTCAGTGGCAACGGCGTTGGATTCCCAGGCATGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             489 GAAACCTGACTTTAAAGAGCTAGTATTGAGCAACAATGACTTCCATGAGGCTGGTATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                609 crdrggrarcacarchaccaachacaachachacharargrangingiagectrcaaagccrc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2406 TCTGGTTGAGTTGGACCTGACAGGAATGCACTGGAGGATTTGGGCCTGAGGTTACTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCAGGGACTGAGGCACCCAGTCTGCAGACTACGGACTTTGTGGCTGAAGATCTGCCGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CACTGCTGCTGCTGACGAGCTGGCCTCAACTCTCAGTGTGAACCAGAGCCTGAGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                    1986 GCAGCTCAGACCAGAGAGCGTTCTGCTGGACGCCTACAGTGAACATCTGGCAGCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     crcadaacracracracracracracradarandericraracracracracranarar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 789 cacridcadadecridcaaggaccrigreccercricagaeccaagcagaecrigaagga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2586 GCTGGACCTGAATGAGCTGGGGGACCTCGGGGTGCTGCTGTGTGAGGGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           849 ACTCAGCCTAGCTGGCAATGAGCTGAAGGATGAGGCTGCCCAACTGCTGTGTGAGAGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       909 GTTAGAGCCTGCTGTCAGCTGGAGTCACTGTGGGTAAAGACCTGTAGCCTCACAGCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2766 GAGTITCAACGACCTGGGAGACTGGGGCCTGTGGTTGCTGGCTGAGGGGCTGCAACATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2286 GCTGCTTTGCGAGGGCCTGCGGCATCCCCAGTGCAGGCTGCAGATGATTCAGTTGAGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            669 ACTGCAAGAACTGGACTTGGGCAGCAACAAGCTGGGCAACACAGGCATTGCAGCACTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2646 CAGGCATCCCACGTGCAAGCTCCAGACCCTGCGGCTTGGGCCATCTGCCGCTGGGCTTTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGCCTGTGAGGGTCTTTCTGTGGTGCTCCAGGCCAACCACAACCTCCGGGAGCTGGACTT
                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                        Length 1374;
                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                        Score 256.6; DB 2;
Pred. No. 2.4e-58;
); Mismatches 499;
                                                                                                                                                                                                                                                                                                                                                                   ;
0
                                                                                                                                                                                                                                                                                                                        8.3%;
              TELEFAX: 202-371-2540
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 1374 base pairs
202-371-2600
                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                               TYPE: nucleic acid
STRANDEDNESS: both
                                                                                                                                                          TOPOLOGY: both
MOLECULE TYPE: cDNA
                                                                                                                                                                                                                                                      1..1368
                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                        both
                                                                                                                                                                                                                            , NAME/KEY:
, LOCATION:
US-08-910-731-3
                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Simi
Matches 556;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2706
                                                                                                                                                                                                        FEATURE
```

ö

SIGNALING

```
GCAGTGTACATGCTCTACCTGCTGTGCTACCCCAAGCCGGGGGCCCCGCGCCTC 1275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             122 GTGCTGC-GCCANANTGNGAGCTCGGTCGGGACCTGTCGGGCACGTCCAAGACCACGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181 róakitetakortetritoaroakkostrotkakorokkostokkatakokkakokkok
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1036 TACTICTACAAGIATITICCACAATGCAGAGCAGGCGGGCCAAGICTICAATTACGIGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TATTITCTACAAGTATTITCCGGGATGAGAGGAGGCCGAGCGCCCTACCGCTTCGTGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 257;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                        APPLICANT: Janice Au-Young
APPLICANT: Jeffrey J. Selihamer
TITLE OF INVENTION: PATHWAY GENE EXPRESSION
NUMBER OF SEQUENCES: 1490
CORRESPONDENCE ADDERSS:
ADDRESSEE: INCYTE PHARMACEUTICALS, INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  6.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 85.8; DB 4;
Pred. No. 5.7e-13;
0; Mismatches 100;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ZIP: 94304
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Word Perfect 6.1 for Windows/MS-DOS
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/016,434
FILING DATE: HEREWITH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                \mathbf{u}_{\mathbf{S}}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADDRESSEE: INCYTE PHARMACEUTICALS, STREET: 3174 PORTER DRIVE CITY: PALO ALTO STATE: CALIFORNIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PA-0002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1276 CAGCCCCCACCCAACC 1291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE/DOCKET NUMBER: PA
TELECOMMUNICATION INFORMATION:
TELEPHONE: (650) 855-0555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELBERX: (650) 845-4166
INFORMATION FOR SEQ ID NO: 200
SEQUENCE CHARACTER.ESTICS:
LENGTH: 257 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 2.8%;
Best Local Similarity 60.5%;
Matches 155; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CLASSIFICATION:
ATTORNEY/AGENT INFORMATION:
NAME: Zeller, Karen J.
REGISTRATION NUMBER: 37,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGGTTGCAGGGCGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRANCE...
TOPOLOGY: line...
IMMEDIATE SOURCE:
LIBRARY: SINTESTO1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION DATA: APPLICATION NUMBER:
Patent No. 6500938
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-016-434-208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2885
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2765
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1029 GAGCAGCAACCCGCTGGGAGACTCGGGAGTCGTGGAGCTTTGCAAGGCCCTGGGGCTATCC 1088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGCCCTAGGGGACACAGGTGTCCGACTGCTTTGCAAGCGGCTGAGCCATCCTGGCAA 3005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1209 Crgcargededachaceerericracaachecreeadadeccrcaaacheccadcredar 1268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2646 CAGGCATCCCACGTGCAAGCTCCAGACCCTGCGGTTGGGCATCTGCCGGCTGGGGCTCTGC 2705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              crcristrececacriciscos de de la 1028 contra de la 1028 contra de la 1028 contra de la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contra la 1028 contr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1089 geacacaerecrecererecirriescreseaeacrerererereacaeacrecae 1148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCTGAAGAGGTGCCGCATCTCCAGCTCAGCCTGCGAGGACCTCTCTGCAGCTCTCATAGC 2225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2226 CAATAAGAATITGACAAGGATGGATCTCAGTGGCAACGGCGTTGGATTCCCAGGCATGAT 2285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2346 GIGICAGCIGGAGICCGGGGCTIGICAGGAGAIGGCIICTIGIGCICGGCACCAACCCACA 2405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCTGGACCTGAGCCTGAGCTGGGGACCTCGGGGTGCTGCTGCTGTGAGGGCCT 2645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  968
                                                              2046 CCTGTGCACCAATCCAAACCTGATAGAGCTGTCTGTACCGAAATGCCCTGGGCAGCCG 2105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             848
                                                                                                                                                                                                                                                                                                                                                                                                                                                              488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 548
                                                                                                                                                                                                   309 geriecelererrerenden accidenta de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie de la companie d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2826 CGCCTGCAGACTCCAGAAACTGTGGCTGGAATAGCTGTGGCCTCACAGGCTTGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1149 cagccirioccacrorcciocrosccaaccasocrioasosaaciosaccicasoraacaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          489 galacergactitrala ga generation de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta del comparta del comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta del comparta del comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta de la comparta del comparta del comparta de la comparta del comparta del comparta del comparta del comparta del comparta del comparta del comparta del comparta del comparta del comparta del comparta del comparta del comparta del comparta del comparta del comparta del comparta del comparta del comparta del comparta del comparta del compa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2286 GCTGCTTTGCGAGGGCCTGCGGCATCCCCAGTGCAGGCTGCAGATGATTCAGTTGAGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             549 CACTOTGTGCCAGGGCCTGAAGGATTCTGCCTGTCAACTGGAGTCACTCAAACTGGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               crcaecacrecracidedecres de la constanción de constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la constanción de la cons
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CACTGCTGCTGCTGTGACGAGCTGGCCTCAACTCTCAGTGTGAACCAGAGCCTGAGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               849 Actcaecctaecreecaateaecteaaectaaecteaeccaacteccaactecteaect
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2706 CGCCTGTGAGGGTCTTTCTGTGGTGCTCCAGGCCAACCACAACCTCCGGGAGCTGGACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          dridalanacidralcricacacracadridedaccccredecrelered
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCTGGTTGAGTTGGACCTGACAGGAAATGCACTGGAGGATTTGGGCCTGAGGTTACTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ccaeggacreaegcacccaercrecaeacracegacrrreregeacreaagarcreccer
                                                                                                                                                                                                                                                                                                                                        GGGGGTGAAGCTCTGTCAAGGACTCAGACACCCCAACTGCAAACTTCAGAACCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3006 ACTCCGAGTCCTCTGGTTATTTGGGATGGACCTGA 3040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cerreageagerrerecigiardacarrractega 1303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 12
US-09-016-434-208
; Sequence 208, Application US/09016434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          696
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                729
                                                                                                                                                                                                                                                                                                                                                      2106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    429
```

ઠ 셤 ò g ò 원 8 임 à 유 ò g ò

염

ò 엄 ò

a ò 셤

à 셤 ò g à g ð 셤

ઠે

RESULT 13 US-09-023-655-395 ; Sequence 395, Application US/09023655

g ò 유 8

1155

61

Gaps

..

```
303 AGAAGGAACTGGAGCAACTGGAGCTTCGTGGCTCCAAAGTGCAGACGCTGTTTCTCANCA 362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1232 ACCTGCTGAGTCTGAACCCAAGCCGGGGCCCCGCGCCTCCAGCCCCCAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    243 TGCGCAATCTGTGCCGCCTGGCCCGCGAGGGCGTCCTCGGACGCAGGGCGCANTTTGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1113 CACCATGTGCTTCGTCCCCCTGGTGTGCTGGTGTGTGTACCTGCCTCCAGCAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        63 CNCNCTGTTCTTCGTGCCCTTCGTGTGCTGGATCGTGTGCACCGTNCTGCGCCAGCAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGAGGGTGGGGGGCTGTTGAGACAGACGTCC-AGGACCACCACCACTGCAGTGTACATGCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        123 GGAGCTCGGTCGGGACCTGTCGCGCACGTCCAAGGACCACCACGTCAGTGTACCTGCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            183 TCATCACCANNNITCTGAGCTCGGCTCCGGTAGCCGACGGGCCCCGGTTGCAGGGCGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1292 AGAGAGGGTTGTGCCTCCTTGGCGGCAGATGGGCTCTGGAATCAGAAAATCCTATTTGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1352 AGCAGGACCTCCGGAAGCACGGCCT---AGACGGGGAAGACGTCTCTGCCTTCCTCAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                           THE DETECTION OF SIGNALING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ..
2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 678;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 77.4; DB 4; Length 6 Pred. No. 1.7e-10; 0; Mismatches 186; Indele
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: Word Perfect 6.1 for Windows/MS-DOS 6.2 CURRENT APPLICATION DATA:
APPLICATION UNMER: US/09/016,434
FILING DATE: HEREWITH
Sequence 1011, Application US/09016434

Patent No. 6500938

GENERAL INFORMATION:
APPLICANT: Jafice Au-Young
APPLICANT: Jeffrey J. Sellhamer
TITLE OF INVENTION: COMPOSITION FOR THE DETECT
TITLE OF INVENTION: PATHWAY GENE EXPRESSION
TITLE OF INVENTION: PATHWAY GENE EXPRESSION
CORRESPONDENCE ADDRESS: 1490
STREET: ADDRESS: INCYTE PHARMACEUTICALS, INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATTORNEY/AGENT INFORMATION:
NAME: Zeller, Karen J.
REGISTRATION UNDRER: 37,071
REFERENCE/DOCKET NUMBER: PA-00
TELECOMMUNICATION INFORMATION:
TELEPHONE: (650) 845-4166
INFORMATION FOR SEQ ID NO: 1011:
SEQUENCE CHARACTERISTICS:
LENGTH: 678 BASE PAIRS
TEMBENES; single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
CMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 2.5%;
Best Local Similarity 53.3%;
Matches 218; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                           CITY: PALO ALTO
STATE: CALIFORNIA
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LIBRARY: BRAINOT04;
CLONE: 927003
US-09-016-434-1011
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE: HI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           94304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2708 CCTGTGAGGGTCTTTCTGTGGTGCTCCAGGCCAACCACAACCT-CCGGGAGCTGGACTTG 2766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2767 AGTITCAACGACCTGGGAGACTGGGGCCTGTGCTGCTGGCTGAGGGGCTGCAACATCCC 2826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2827 GCCTGCAGACTCCAGAAACTGTGGCTGGATAGCTGTGGCCTCACAGGCCAAGGCTTGTGAG 2886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2887 AAICITIACITCACCCIGGGGATCAACCAGACCITGACC-GACCITTACCTGACCAACAA 2945
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    182 GATCTTNCATCAGTATTGAGCACCAGCCATTCCCTGACCAGACCTCTATGTGGGGGGAGAA 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        122 TTGTGCAATCTGAAGAAGCTCTGGTTGGTCAGCTGCCTCACATCACATGTTGTCAG 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2 céréctrosacaretecrissiceres as as a constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de la constant de l
                                           GENERAL INFORMATION:
APPLICANT: COCKS, Benjamin G.
APPLICANT: Susan G. Stuart
APPLICANT: Jeffrey J. Seilhamer
TITLE OF INVENTION: COMPOSITION FOR THE DETECTION OF BLOOD CELL GENE
TITLE OF INVENTION: EXPRESSION
NUMBER OF SEQUENCES: 1508
CORRESPONDENCE ADDRESSES:
ADDRESSEE: INCTTE PHARMACEUTICALS, INC.
STREET: 3174 PORTER DRIVE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .;
?
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 83.2; DB 4; Length 376;
Pred. No. 3.4e-12;
0; Mismatches 104; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ZIP: 9430 42

ZIP: 9430 42

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM FC compatible

COMPUTER: IBM FC COMPATIBLE

SOFTWARE: Word Perfect 6.1 for Windows/MS-DOS 6.2

SOFTWARE: Word Perfect 6.1 for Windows/MS-DOS 6.2

CURRETT APPLICATION NUMBER: US/09/023,655

FILING DATE: HEREWITH

CLASSIFICATION DATA:

PRIOR APPLICATION DATA:

APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2946 CGCCCTAGGGGACACAGGTGTCCGACTGCTTTG 2978
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    242 recerreceachereceachererarie 274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATTORNEY/AGENT INFORMATION:
NAME: Zeller, Karen J.
REGISTRATION NUMBER: 37,071
REFRENCE/DOCKET NUMBER: PA-C
TELECOMMUNICATION INFORMATION:
TELEPHONE: (650) 855-0555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEFAX: (650) 845-4166
INFORMATION FOR SEQ ID NO: 395:
SEQUENCE CHARACTERISTICS:
LENGTH: 376 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 61.2<sup>3</sup>
Matches 167; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LIBRARY: THP1PLB02
CLONE: 153338
                                                                                                                                                                                                                                                                                                                                                                                                                                   CITY: PALO ALTO STATE: CALIFORNIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IMMEDIATE SOURCE
       Patent No. 6607879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-023-655-395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY:
```

182

1291

3;

ò 셤 ઠ 셤 ò 셤

셤

ઠ

8

1408

302

1409 TGAACATCTTCCAGAAGGACATCAACTGTGAGAGGTACTACAGCTTCATCCACTTGAGTT 1468

363 AAAAGGACTGCCGGGCGTGCTGGAAACAGAGGTCACCTACCAGTTCATCGGACCAGAGC

RESULT 14 US-09-016-434-1011

```
US-04-949-010-3409, Application US/09949016

Sequence 3209, Application US/09949016

Facett No. 681239

GENERAL INFORMATION:

APPLICANT: VENTER, J. Craig et al.

APPLICANT: VENTER, J. Craig et al.

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

CURRENT FILING DATE: 2000-04-14

PRIOR FILING DATE: 2000-04-14

PRIOR APPLICATION NUMBER: 60/231, 498

PRIOR PILING DATE: 2000-10-03

PRIOR FILING DATE: 2000-10-03

PRIOR FILING DATE: 2000-10-03

NUMBER OF SEQ ID NOS: 207012

SOFTWARE: FREESEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1363 cgcaadgirgaigakchaccdrickagckirigirckagerirckiga---daagrakard 1419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCCAGGCAIGTGGAGATCCTGGGGTTCTCTGAGGCAGAAAGGAAGGAATACTTCTACAAG 1047
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1189 ĠACAİCTİCCAGTİACTCCTTGACCACCCTGACGTGİCCİGTİAACCTİTGATGGCTTT 1248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1249 dacdadrichadrichegerrchegarchegandecherden----creeceaeceae 1302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1072 cagis---aartricritristritriccarricagiscosocas casas 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1012 Agradcialada de de de consecuente de la consecuencia de de deserción de 1000 de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia de la consecuencia della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della della dell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          640 CAAGGCAGATITGATTATCTCTTCTACATCAACTGCAGGAGATGAACCAGAGTGCCACG 699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 700 GAATGCAGCATGCAAGACCTCATCTTCAGCTGGCCTGAGCCCAGGCGCGCTCTCCAG 759
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              868 AAACGGCCCACGGAGCTGCTTCTTAACAGCTTAATTCGGAAGAAGCTGCTCCCTGAGCTA 927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    928 TCTTTGCTCATCACCACACACGCCTTTGGAGAAGCTCCACGTCTGCTGGAGCAC 987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       461 GGGGACACGCGAGGACCGTGGGACACCAGGCTAGCC-CCATCAAGATAGAGACCCTCTTT 519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    892 gregocarogacicocococasas de consecue de consecue de consecue de como de consecue de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como de como d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1303 cccaccrcrerccadacccrecrerrcaaccrrrcacadeccaaccaaccrecreand
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              808 gangagericaagecerrerrirecacgarecricaggaaccergerecercrigenggaagaag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1129 ccacrcrordecoancrcrarcritraagcacrdrogedecroardrogicaaga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAGCTCATCCGAGTTCCC-----GAGCGCCTCCTTTTCATCATCGACGGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          580 ATAGGCAAAGTCCATGCTGGCACACACAAGGTGATGCTGGACTGGGCGGAAGGCTCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         25;
1469 rccaggaarr-crrrgcagcrargracrararccrggacgaggass
                                                                                Length 4485;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 68.2; DB 4; Length 44
Pred. No. 1.3e-07;
0; Mismatches 368; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 2.2%;
Best Local Similarity 48.1%;
Matches 364; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 , ORGANISM: Human
US-09-949-016-3209
                                                                                                                                                                                                                                                                                                                                                                                     -09-949-016-3209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQ ID NO 3209
LENGTH: 4485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: DNA
                                                                                                                                         423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       õ
                                     ò
                                                                                                                                         셤
```

```
Db 1420 GGCACCGAGTTCAAGGGCTTCTGAACAGGGCATGTACCTGAGGAAG 1479

Oy 1048 TATTCCACAATGCAGGGGGGGCCAAGTCTTCAATTACGTGAGGGACAAGGGCT 1107

Db 1480 GGCCATCATGAGCCGGGGGGGCCAAGTCTTCAATTACGTGAGGGACAAGGGCT 1107

Oy 1108 CTCTTCACCATGTGGCGGGGGGGGCTGCTGCTCGAAGAGACTCAGCG 1539

Oy 1168 CTCTTCACCATGTGCTCGTCCCCTGGTGGTGGTGGTGGCTGCTCCAAGAGACTCAGGA 1599

Oy 1168 CAGCTGGAGGGGGCTGTTGAGACAGACGTCCAATGCCACAGGAA 1599

Oy 1168 CAGCTGGAGGGGGGTTTGAGACAGACGTCCAATGCCACAGGAA 1599

Oy 1168 CAGCTGGAGGGGGGTTTGAGACAGACGTCCAATGCCACAGGAA 1599

Oy 1168 CAGCTGGAGGGGGGGTTTGAGACAGACGTCCAATGCCACAGGAA 1599

Ob 1160 CTGTTGCTGAGAGGGGGGTTTGAGACACATA 1636

Db 1500 CTGTTGCTGAGAGGGGGGTCCCAAAGACCACTA 1636

Search completed: February 8, 2005, 22:51:52
```

Sequence 1, A Sequence 6,

US-10-127-516-6 US-10-027-629-6 US-10-132-96-7-6 US-10-127-516-4 US-10-027-629-4 US-10-027-629-4 US-10-027-629-4 US-10-027-629-4 US-10-024-958-21 US-09-799-983-5

10 17 18

Sequence 6, Appli Sequence 4, Appli Sequence 1, Appli Sequence 21, Appli Sequence 58, Appli Sequence 58, Appli Sequence 58, Appli Sequence 38, Appli Sequence 10957, A Sequence 21, Appli Sequence 21, Appli Sequence 5, Appli Sequence 5, Appli Sequence 5, Appli Sequence 3, Appli Sequence 3, Appli Sequence 3, Appli Sequence 3, Appli Sequence 3, Appli Sequence 3, Appli Sequence 3, Appli Sequence 3, Appli Sequence 3, Appli Sequence 3, Appli Sequence 3, Appli Sequence 2, Appli

0.05.09.965.661.58 0.05.09.965.661.58 0.05.10.407.866.58 0.05.10.407.866.58 0.05.10.407.866.58 0.05.10.407.84.58 0.05.10.407.84.86.5 0.05.10.407.84.86.5 0.05.10.407.86.86.86 0.05.10.407.86.86.86 0.05.10.407.86.86.86 0.05.10.407.86.86.86 0.05.10.407.86.86.86 0.05.10.407.86.86.86 0.05.10.407.86.86.86 0.05.10.407.86.86.86 0.05.10.407.86.86.86 0.05.10.407.86.86.86 0.05.10.407.86.86.86 0.05.10.407.86.86

Sequence . Apply Sequence 1, Apply . Seguence 9, Appl

Sequence 9,

US-10-828-920-1 US-09-388-221-9 US-10-828-920-9

ALIGNMENTS

US-09-996-617-5 US-09-931-071-5 US-09-388-221-1

Sequence 5, Appli Sequence 5, Appli Sequence 1, Appli

```
JOURTON TO TITLE OF INVENTION TITLE OF INVENTOR Demands of USE OF SECTION TO TITLE OF INVENTION PAPEL OF SECTION TO TITLE OF INVENTION TO TITLE OF INVENTION PAPEL OF TITLE OF INVENTION PAPEL OF TITLE OF INVENTION PAPEL OF TITLE OF INVENTION PAPEL OF TITLE OF INVENTION WINNER: US/09/965,621

CURRENT PILING DATE: 2001-09-25

PRIOR FILING DATE: 2000-09-26

NUMBER OF SEQ ID NOS: 64

NUMBER OF SEQ ID NOS: 64

SOFTWARE: PARESEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; Score 3108;
100.0%; Pred. No. 0;
iive 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 100.
Matches 3108; Conservative
...(3105)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: DNA
ORGANISM: Homo sapien
  NAME/KEY: CDS
LOCATION: (1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQ ID NO 23
LENGTH: 3108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; LOCATION: (1)
US-09-965-621-23
    1394.8
947.6
800.4
800.4
800.4
800.4
800.4
800.4
                                                                                                                                                                                                                                                                         639

595.6

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.0

475.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURE
    24660, A
1, Appli
                                                                                                                                            February 8, 2005, 20:14:19; Search time 1555 Seconds (without alignments) 11504.081 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                           1 atgctacgaaccgcaggcag......atttggacattggctgctga 3108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Published Applications NA:*

| cgn2_6/ptodata/2/pubpna/USO7_PUBCOMB.seq:*
| cgn2_6/ptodata/2/pubpna/USO7_NEW PUB.seq:*
| cgn2_6/ptodata/2/pubpna/USO6_NEW PUB.seq:*
| cgn2_6/ptodata/2/pubpna/USO6_PUBCOMB.seq:*
| cgn2_6/ptodata/2/pubpna/USO7_NEW PUB.seq:*
| cgn2_6/ptodata/2/pubpna/USO7_NEW PUB.seq:*
| cgn2_6/ptodata/2/pubpna/USO7_NEW PUB.seq:*
| cgn2_6/ptodata/2/pubpna/USO8_NEW PUB.seq:*
| cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
| cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
| cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
| cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
| cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
| cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
| cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
| cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
| cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
| cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
| cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
| cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
| cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
| cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
| cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
| cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
| cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
| cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
| cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
| cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
| cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
| cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
| cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
| cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
| cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
| cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
| cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
| cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
| cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
| cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
| cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
| cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
| cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
| cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
| cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
| cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
| cgn2_6/ptodata/2/pubpna/USO8_PUBCOM
                     GenCore version 5.1.6
(c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-965-621-23
US-10-407-866-23
US-10-781-294-23
US-10-124-498-17
US-10-066-521-17
US-10-407-866-67
US-10-108-260A-718
US-10-162-335-21
US-10-467-397-19
US-10-029-386-24660
US-10-028-374-1
                                                                                                                                                                                                                                                                                                                                                                                                                     Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                              4313806 segs, 2877871033 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                       sw model
                                                                                                                                                                                                                                                                                                                   IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                       nucleic search, using
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   seq length: 0
seq length: 200000000
                                                                                                                                                                                                                  US-10-781-294-23
3108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              114
117
117
118
118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query
Match Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3108
3108
3186
3186
3218
3466
1800
1704
                                         Copyright
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1000.0
1000.0
96.5
94.2
94.2
95.1
954.9
95.1
954.9
                                                                                                                                                                                                                                                 Perfect score:
Sequence:
                                                                                                                                                                                                                                                                                                                     Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3108
3108
3108
2997.8
2997.8
2644.2
1705.4
1680
1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Minimum DB
Maximum DB
                                                                                                       OM nucleic
                                                                                                                                                                                                                                                                                                                                                                                  Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Database
                                                                                                                                                Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Result
```

ö

Gaps

ö

U

DB 10; Length 3108; Indele

4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5	
A THE THE CONCECTAGE AND CONCECTED TO THE CONCECTAGE AND CONCECT	

\$\frac{1}{2}\$\$ \$\frac

CURRENT APPLICATION NUMBER: US/10/407,866 ; CURRENT FILING DATE: 2003-04-04 ; PRIOR APPLICATION NUMBER: US 60/370,538 ; PRIOR FILING DATE: 2002-04-04 ; NUMBER: OF SEQ ID NOS: 129 ; SOCTWARE: FastSEQ for Windows Version 4.0 ; SEQ ID NO 23 ; LENGTH: 3108 ; TYPE: DNA ; ORCANISM: Homo sapien ; FATURE: ; NAME/KEX: CDS ; LOCATION: (1)(3105) US-10-407-866-23	Query Match 100.0%; Score 3108; DB 17; Length 3108; Best Local Similarity 100.0%; Pred. No. 0; Matches 3108; Conservative 0; Mismatches 0; Indels 0; Gaps 0; Qy 1 ATGCTAGGAACGGCAGGGACGCCTCTGTCGCCTGTCCACCTACTTGGAAGAACTC 60	Db 1 ATGCTACGAACCGCAGGACGGCCTCTGTCGCCTGTCCACTTGGAACTC 60 Qy 61 GAGGCTGTGGAACTGAAGAAGTTCAAGTTATACCTGGGGACCGCGACACAGCTCGGAGAA 120	Db 121 GGCAAGATCCCCTGGGGAAGCATGGGCGGTCCCTGGAAATGGCCCGGTGCT		Db 301 ACCTACAGGACTATGTTCGGAAAATTCCGGCTCATGGAAGACCGCAATGCGCGCCTA 360 Qy 361 GGGAATGTGTCAACCTCAGCGGTAACACCTGCTGCTGAAGAGACTCTA 420 Db 361 GGGGAATGTGTCAACCTCAGCGGTACACCGGCTCCTGCTGCTGAAGAGACTCA 420		481 GGACACCAGGCTAGCCCCATCAAGATAGAGACCCTCTTTGAGCCAGACGAGGGCCCCCCCC	Qy 541 GAGCCACGCGCACCGTGGTCATGCAAGGCGCGCGCAGGGAATTCCATGCTGGCA 600	Db 601 CACAAGGTGATGGGGGAACGGGAAGCTCTTCCAAGGCAATTTGATTATCTC 660 Qy 661 TTCTACATCAACTGCAGGAGATGAACCAGGAATGCACGGAATGCACGCATGCAAGACCTC 720 Db	Qy 721 ATCTTCAGCTGCCTGAGCCCTGCTCTCCAGGAGCTCATCCGAGTTCCCGAG 780 Db 721 ATCTTCAGCTGGCCTGAGCCCAGCGCGCCTCTCCAGGAGCTCATCCGAGTTCCCGAG 780	Qy 781 CGCCTCTTTCATCATCGACGCTTCGATGAGCTCAAGCCTTCTTTCCACGATCCTCAG 840
2161 CTGAGGCTGAAGAGGTGCCGCATCTCCAGCCTGCGAGGACCTCTCTGCAGCTCTC 2221 ATAGCCAATAAGAATTTGACAAGATGCGATCTCAGTGGCAACGCGTTGGATTCCCAGGC 2221 ATAGCCAATAAGAATTTGACAAGATCGATCCCAGTGGCAACGCGTTGGATTCCCAGGC 2281 ATGATGCTGCTTTGCGAGGCCTGCGGCATCCCAGTGCCAGTGCAGATGATTCAGTTG 2281 ATGATGCTGCTTTGCGAGGCCTGCGGCATCCCCAGTGCAGGCTGCAGATGATTCAGTTG 2381 AGGAAGTGTCAGCTGCGGGCTTGTCAGGAGGCTGCAGATGATTCAGTTG 2381 AGGAAGTGTCAGGCTGCGGGCTTGTCAGGAGATGGCTTCGTGCTCGGCACCAAC 2381 AGGAAGTGTCAGGCTCGGGGCTTGTCAGGAGATGGCTTCGTGCTCGGCACCAAC 2381 AGGAAGTGTCAGGCTTGTCAGGAGATGGCTTCTGTGCTCGGCACCAAC	Oy 2401 CCACATCTGGTTGACTTGACCTGACAGAAATGCACTGGAGGATTTGGGCCTGAGGTTA 2460 Db 2401 CCACATCTGGTTGAGTTGGACTTGAGAATGCACTGGAGGATTTGGGCCTGAGGTTA 2460 Oy 2461 CTATGCCAGGGACTGAGGCACCCAGTCTGCAGACTTGTGGCTGAAGATCTGC 2520 Db 2461 CTATGCCAGGGACTCAGGCACCCAGTCTGCAGACTACGGACTTTGTGGCTGAAGATCTGC 2520	2521 GGCCTCACTGCTGCTGTGACGAGCTGGCCTCAACTCTCAGTGTGAACCAGAGCCTG	Db 2581 AGAGACCTGAGCCTGAATGAGCTGGGGGACCTCGGGGTGCTGCTGTGTGGG 2640 Oy 2641 GGCCTCAGGCATCCCACGTGCAAGCTCCAGACCCTGCGGTTGGGCATCTGCCGGCTGGGC 2700 Db 2641 GGCCTCAGGCATCCCACGTGCAAGCTCCAGACCCTGCGGTTGGGCATCTGCCGGCTGGGC 2700	2701 TCTGCCGCTGTGAGGGTCTTTCTGTGGTGCTCCAGGCCAACCACAACCTCCGGGAGCTG	Db 2761 GACTTGAGTTTCAACGACCTGGGGGCCTGTGGGTTGCTGGTGGGGGCTGCAA 2820 Oy 2821 CATCCCGCCTGCAGAACTGTGGCTGGATAGCTGTGCCTCACAGGCTACAAGGCT 2880 Db 2821 CATCCCGCCTGCAGAACTGTGGCTGGATAGCTGTGGCTTCACAGGCT 2880	OY 2881 TGTGAGAATCTTTACTTCACCCTGGGGATCAACCAGACCTTGACCGACC	2941 AACAACGCCCTAGGGGACACAGGTGTCCGACTTGCAAGCGGCTGAGCCATCCTGGC 3001 TGCAAACTCCGAGTCCTGGTFATTTGGGATCGACTGAATAAAATGACCCACAGTAGG		SULT 2 -10-407-866-23 Sequence 23, Application US/10407866	HUDITGELON NO. USZU040002593A1 FUDITGELON APPLICANT: Reed, John C. APPLICANT: Reed, John C. APPLICANT: ADDITIONED TO TAKE THE TAKE THE TA	

	1360 CTCCGGAAGCACGGCAAGACGGCAAGACGTCTCCTCAACATGAACATCTTC		ACCACCCACCCCCCCCCCCCCCCCCCCCCCCCCCCCCC		2098 GCCTACAGIGAACAICTIGGCACCGGGCCCTGTGCACCAATCCGATAGGTGTCT 215/ 2080 CTGTACCGAAATGCCCTGGGCAGCGGGGGTGAAGCTGCTCTGTCAAGGACTCAGACAC 2139 2158 CTGTACCGAAATGCCTGGGCAGCGGGGGTGAAGCTGCTCTGTCAAGGACTCAGACAC 2217 2140 CCCAACTGCAAATTCAGAACCTGAGGCTGAAGCTGCCGCATCTCCAGCTCAGCTGC 2199
8 8 8 8 8 8 8 8	8 8 8 8 8 8	3 8 5 8 5 8 5	868686	8 8 8 8 8	8 & 8 &
					·····
61 GAGGCTGTGGAACTGAAGATTCAAGTTATACCTGGGGACGGAC	GOTGGCCCGACGAACCTACAGGACTATCTGGAAGTCTCTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTT	460 CGGGGACACGCGAGCACCAGGCTAGCCCCATCAAGATAGAGCCCTCTTT 519 [640 CAAGGCAGATTTGATTATCTTCTACATCAACTGCAGGGAGATGAACCAGAGTGCCACG 699	CCTTCTTTCCACGATCCTCAGGGACCCTGGTGCTGGGAGGAGAAACGGCCCACG [1021 ACCACACGCCTTTGGAAAGCTCCACCGTCTGGAGCACCCCAGGCATGTT 1:000 1000 GAGATCCTGGGCTTCTGAGGAAAGGAAGGAATACTCTACAAGTATTCCACAAT 1059 1081 GAGATCCTGGGCTTCTCTGAGGAAAGGAAGGAATACTTCTACAAGTATTCCACAAT 1140 1080 GCAGAGCAGCATCTCTGAGGAAAAGGAAAGGAATACTTCTACAAGTATTTCCACAAT 1140 1060 GCAGAGCAGCGGCCCAAGTCTTCAATTACGTGAGGGAACAACGAGCCTCTCTCACCAAT 1119

```
ORGANISM: Homo sapiens
                                                                                                                                        ...(3183)
                                                                                                                            ; FEATURE:
; NAME/KEY: CDS
; LOCATION: (1)...
US-10-066-521-17
                                                                                                                                                                                                                                                                                                                                                                                                                                        400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   520
                                                                                                                                                                                                                                                                                                                                                                                                           340
                                                                                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                 289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                          õ
                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                              В
                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                        ద
                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                             3039
                                                                                                                                                                                                                                                                                                                                                                                                                                          AATAAAATGACCCACAGAGTAGGTAGGCAGGCCTTCGAGTAACAAAACCTTATTTGGACATT 3099
                                                                                                                                                                                                                                                                                                                                                                                                                                                  2937
                                                                                                                                                                                                                                                         2680 Tregescarcreccescrescrescrescrescrescrescrestrescrescrescrescrescrescrescendes 2739
                                                                                                                                                                                                                                                                        2817
                                                                                                                                                                                                                             2679
                                                                                                                                                                                                                                           2757
                                                                                                       2439
                                                                                                                                    2499
                                                                                                                                                   2577
                                                                                                                                                                  2559
                                                                                                                                                                                2637
                                                                                                                                                                                                              2697
                                                                                 TGTGGCCTCACAGCCAAGGCTTGTGAGAATCTTTACTTCACCCTGGGGATCAACCAGACC
                                                                                                                                                                                                                                                                                                                                                                               TIGACCGACCTITIACCTGACCAACAACGCCCTAGGGGACACAGGTGTCCGACTGCTTTGC
                                                                                                                                                                                                                                                                                                 TTGCTGGGCTGAGGGCTGCAACATCCCGCCTGCAGACTCCCAGAAACTGTGGCTGGATAGC
                                                                                                                                                                                                                                                                                                                                AACCACAACCTCCGGGAGCTGGACTTGAGTTTCAACGACCTGGGAGACTGGGGCCTGTGG
                                                                                                       GCTTCTGTGCTCGGCACCACCACATCTGGTTGAGTTGGACCTGACAGAAATGCACTG
                                                                                                               GAGGATTTGGGCCTGAGGTTACTATGCCAGGGACTGAGGCACCCAGTCTGCAGACTACGG
                                                                                                                                            ACTITIGIGGGTGAAGATGTGCCGCCTCACTGCTGCTGTGACGAGGTGGCCTCAAGT
                                                                                                                                                                          CTCAGIGIGAACCAGAGCCIGAGAGGGGGCCGGAGCCIGAATGAGCTGGGGGGACCTC
                                                                                                                                                                                                        2638 CTCAGTGTGAACCAGAGCCTGAGAGCTGGACCTGAGCCTGAATGAGCTGGGGGCCCC
                                                                                                                                                                                                                            gagaracracrataraagaccrcaagaccrcacacaracracaagaccraaga
                                                                                                                                                                                                                                     2698 GGGGTGCTGCTGTGTGAGGCCTCAGGCATCCCACGTGCAAGCTCCAAACCCTGCGG
CCCAACTGCAAACTTCAGAACCTGAGGCTGAAGGTGCCGCATCTCCAGCTCAGCCTGC
                      2260 AACGGCGTTGGATTCCCAGGCATGTTGCTTTGCGAGGGCCTGCGGGCATCCCCAGTGC
                                                    2338 AACGGCGTTGGATTCCCAGGCATGATGCTGCTTTGCGAGGGCTGCGGGCATCCCAAATGC
                                                                         AGGCTGCAGATGATTCAGTTGAGGAAGTGTCAGCTGGAGTCCGGGGGCTTGTCAGGAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGCTGCTGA 3108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGCTGCTGA 3186
                                                                                                                                                                                                                                                                                                                                                                                                                  2980
                                                                                                                                                                                                                                                                                                                                                                                                                                3058
                                                                                                                                                                                                                                                                                                                                                                                                                                               3040
                                                                                                                                                                                                                                                                                                                                                                                                                                                             3118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3178
                                                                                                                                                                                                                                                                                                          2818
                                                                                                                                                                                                                                                                                                                                                                                     2920
                                                                                                                                                                                                                                                                                                                                                                                                  2998
                                                                                                                                                                                                                                 2620
                                                                                                                                                                                                                                                                             2758
                                                                                                                                                                                                                                                                                            2740
                                                                                                                                                                                                                                                                                                                         2800
                                                                                                                                                                                                                                                                                                                                       2878
                                                                                                                                                                                                                                                                                                                                                      2860
                                                                                                                                                                                                                                                                                                                                                                     2938
                                                                                                                                                                      2500
                                                                                            2398
                                                                                                            2380
                                                                                                                         2458
                                                                                                                                        2440
                                                                                                                                                       2518
                                                                                                                                                                                                    2560
                                                                               2320
                   2200
                                  2278
                                                                                                                                                                                                                                                                                                                                                                                   $ B $
                                                                                                                                                                                                                                                                                                                                                                                                                              유
                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            \dot{\delta}
                                                                                                                                                                                                                                                                                                                     8 6 B
                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                        පු
                                                                                                                                                                                                                                                                                           8 G
                                                                                                                        g
                                                                                                                                        à
                                                                                                                                                      d
                                                                                                                                                                    à
                                                                                                                                                                                   Q
                                                                                                                                                                                                    ò
                                                                                                                                                                                                                g
                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                          ò
                                                                                            g
                                                                                                            ò
                                                              셤
                                                                               ò
                                                 à
                    à
                                셤
```

Sequence 17, Application US/10066521 Publication No. US20030027757A1 GENERAL INFORMATION: APPLICANT: Bertin, John

RESULT 5 US-10-066-521-17

ATAGGCAAGTCCATGCTGGCACACAAGGTGATGCTGGACTGGGCGGACGCGGAAGCTCTTC 639 519 GAAGACCGCAATGCGCGCGTAGGGGAATGTGTCAACCTCAGCCACGGTACACCCGGGTG 399 459 900 480 240 301 GGTGGCCCGTCCTCACTTGGGAACCAGTCAACATGCCTTCTGGAAGTCTCTTGTCACT 360 339 361 CCAAGAAAGATCCCCAGGAAACCTACAGGGACTATGTCCGCAGGAAATTCCGGCTCATG 420 61 GAGGCTGTGGAACTGAAGATTCAAGTTATACCTGGGGACGGCAACAGAACTGGGAGAA 120 180 180 240 120 9 9 CTGCTGTGAGGGGGGCCTCAAACCCCATGCAGGCAGCACCAGCAGCTTCTGGACACAGGC ------garccccaggaaaccracaggacrargrccgcaggaaatrccggcrcarg CGGGGACACGCGAGGACCGTGGGACACCAGGCTAGCCCCATCAAGATAGAGACCCTCTTT 61 GAGGCTGTGGAACTGAAGTTCAAGTTATACCTGGGGACCGCGACAGAGGAGAA 181 ATCACCCACTTCGGGCCAGAGGAGGCCTGGAGGTTGGCTCTCAGCACCTTTGAGCGGATA 241 AACAGGAAGCTGTGGGAAGAGAAGAAGAAGAGGACCTGGTGAGG------1 AIGCTACGAACCGCAGGCAGGACGCCCTCTGTCGCCTGTCCACTACTTGGAAGAACTC 1 ATGCTACGAACCGCAGGGACGCCTCTGTCGCCTGTCCACCTACTTGGAAGAACTC 84; Gaps Length 3186; APPLICANT: Wang, Weiye
APPLICANT: Blatcher, Maria
APPLICANT: Blatcher, Maria
TITLE OF INVENTION: NOVEL MOLECULES OF THE PYBIN/NBS/LRR
TITLE OF INVENTION: NOVEL MOLECULES OF THEREOF
TITLE OF INVENTION: PROTEIN FAMILY AND USES THEREOF
FILE REFERENCE: 07334-334001
CURRENT PELLORION NUMBER: 2002-66-25
PRIOR APPLICATION NUMBER: 60/318,645
PRIOR FILING DATE: 2001-09-10
PRIOR FILING DATE: 2001-09-10
PRIOR FILING DATE: 2001-09-11
NUMBER OF SEQ ID NOS: 25
SEQ ID NOS: 25
SEQ ID NOS: 25
LENGTH: 3186 2; Indels DB 14; Query Match
Best Local Similarity 97.3%; Pred. No. 0;
Matches 3103; Conservative 0; Mismatches 601 280 661 셤

1720 AGCGACGGCTCCACCCTGCAGGGCTCCTTGGAGTTCTTCAGCTGCTTGTACGAGATC 1779 	CAGGAGGAGGAGTTTATCCAGCAGGCCCTGAGCCACTTCCAGGTGATCGTGGTCAGCAAC 18	ATTGCTTCDAGATGGAGCACATGGTCTCCTTGTTGTGGAGGGCCTGCAGGAGGGCCC 189	CAGGTGCTGCACTTGTATGGGGCCACCTACAGGGGGGGGG	201	2020 GCCTACAGTGAACATCTGGCAGCGCCCTGTGCACCAATCCAAACCTGATAGAGCTGTCT 2079 [213	2140 CCCAACTGCAAACTTCAGAACCTGAAGGGGGGGGGGCGCATCTCCAGCTCAGCCTGC 2199	225		2320 AGGCTGCAGATGATTCAGTTGAGGAAGTGTCAGCTGGAGTCCGGGGCTTGTCAGGAGATG 2379		0 0	255	2560 CTCAGTGTGAACCAGAGCTGAAGAGTGGACCTGAACCTGAATGAGCTGGGGGACCTC 2619	2620 GGGTGCTGCTGTGTGAGGCCTCAGGCATCCCACGTGCAGGCTCCAGACCCTGCGG 2679	2680 TTGGGGATCTGCCGGCTCGCCGCCTGTGAGGGTCTTTCTGTGGTGCTCCAGGCC 2739	2740 AACCACAACCTCCGGGAGCTGGACTTGACTTTCAACGACCTGGGAGACTGGGGCCTGTGG 2799	2800 TTGCTGGCTGAGGGCTGCAACATCCCGCCTGCAGAACTCCAGAAACTGTGGCTGGATAGC 2859
\triangle \trian	da ab	۵ و م	රු අ	ර් සි	රු සි ප	유 성	중 음	S G	장 <u>염</u>	<i>장</i> 옵	& g	ò a	장 염	& 8 8	& 8 8	& A	<i>ኤ</i> 8	&
CAAGGCAGATTTGATTATCTCTACATCAACTGCAGGGAGATGAACCAGAGTGCCACG	721 CAAGGCAGATTTGATTATCTCTTCTACATGCAGGGAGATGAACCAGAGTGCCAGG 780 700 GAATGCAGCATGCAAGACCTCATCTTCAGCTGCTGAGCCTGAGCCCACGCGCCTCTCCAG 759 111111111111111111111111111111111111	760 GAGCTCATCCGAGCGCCTCCTTTTCATCATCGACGCCTTCGATGAGCTCAAG 819	920 CCTTCTTTCCACGATCCTCAGGACCCTGGTGCCTCTGCTGGAGGAGAAAGGGCCCAGG 879	880 GAGCTGCTTCTTAACAGCTTAATTCGGAAGAAGCTGCTCCCTGAGCTATCTTGCTCATC 939	CATGTG 9	GAGATCCTGGGCTTCTCTGAGGCAGAAGGAAGGAATACTTCTACAAGTATTTCCACAAT 1	1060 GCAGAGCAGGCGAGCCAAGTCTTCAATTACGTGAGGACAACGAGCCTCTCTTCACCATG 1119 	TGCTTCGTCCCCTGGTGTGTGTGTGTACCTGCCTCCAGCAGCAGCTGGAGGT	GGGGGGCTGTTGAGACAGACGTCCAGGACCACCACTGCAGTGTACATGCTCTACCTGCTG	AGTCTGATGCAACCCAAGCCGGGGCCCCGCGCCTCCAGCCCCCCACCAACAACAACAAGCGGGCCCCCGCGCCCTCCAGCCCCAGCCCAACCAA	TIGTCCTCCTTGGCGCGCGGATGGGCTCTGGAATCCGAAAATCCTATTGGGGACGGAC	CTCCGGAAGCACGGCCTAGACGGGAAGACGTCTCTGCCTTCCTCAACATGAAC 	GAATTC 1	TTTCCAGCTATGTACTATATCCTGACGGAGGGCGGGGCG		GGCTTCCTGTTTGGACTCCTGAACGAGGAGCCAGGAGGTTCCTGGAGAGCTTCCTGGCAGCACCAGGAGAGCAGCAGGAGAGAGTCTTGGC 1	TGGAAGGTCTCGCCGCACATCAAGATGCACAGAGACCACCTGGAGAAGAAGTCTCTGC TGGAAGGTCTCGCCGCACATCAAGATGCACCTGTTGCAGGATCCAAAGCAAAGCTCAG	1741 TGGAAGGTCTCGCCGCACATCAAGATGGACCTGTTGCAGTGGATCCAAAGCAAAGCTCAG 1800

289 288 418 GGTGGCCCGTCCTCACTTGGGAACCAGTCAACATGCCTTCTGGAAGTCTCTTGTGACT 477	289GATCCCCAGGAAACCTACAGGGACTATGTCCGCAGGAATTCCGGCTCATG 339 478 CCAAGAAAAAGATCCCCAGGAAACCTACAGGACTATGTCCGCAGGAAATTCCGGCTCATG 537	340 GAAGACCGCAATGCGCGCTAGGGAATGTGTCAACCTCAGCCACCGGTACACCCGGCTC 399 	400 CTGCTGGTGAAGGAGCACTCAAACCCCATGCAGGTCCAGCAGCAGCTTCTGGACACAGGC 459 	460 CGGGGACACGGGAGGACCGTGGGACACCAGGCTAGCCATCAAGATAGAGACCCTCTTT 519	520 GAGCCAGACGAGGAGCGCCCGAGCCACCGCGCACCGTGGTAGGAGGCGCGGCAGGG 579	580 ATAGGCAAGTCCATGCTGGCACACAAGGTGATGCTGGACTGGGCGGACGGGAAGCTCTTC 639	640 CAAGGCAGATITGATTATCTCTTCTACATCAACTGCAGGGAGATGAACCAGAGTGCCACG 699	700 GAATGCAGCATGCAAGACCTCATCTTCAGCTGCTGCCTGAGCCCAGCGCGCCTCTCCAG 759	760 GAGCTCATCCGAGTTCCCGAGCGCCTCCTTTTCATCATCGACGGCTTCGATGAGCTCAAG 819	820 CCTTCTTCCACGATCCTCAGGACCCTGGTGCCTCTGCTGGGAGGAGAAACGGCCCACG 879	880 GAGCTGCTTCTTAACAGCTTAATTCGGAAGAAGCTGCTCCCTGAGCTATCTTTGCTCATC 939	940 ACCACACGGCCCACGGCTTTGGAGAAGCTCCACCGTCTGGAGCACCCCAGGCATGTG 999		GCAGAGCAGGCGGGCCAAGTCTTCAATTACGTGAGGACAACGAGCCTCTCTTCACCATG	1258 GCAGAGCGAGGCCAAGTCTTCAATTACGTGAGGGACAACGAGCCTCTCTTCACCAGG 1317 11.00 mc/mncancycraftaracagagagagagagagagagagagagagagagagagag	recriteric conservation	43		
δο -	& A	& 8	& A	, d	ζο qα	yo, da	ζ QΩ	\$ 8 8	λό da	<i>≿</i> 8	\ \ \ \ \	<u>کې وا</u>	, ov	8 8	q _Q	중 옵	\$ 60 -	λο	40 √o
	OY 2860 TGTGGCCTCACAGCCAAGGCTTGTGAGAATCTTTACTTCACCCTGGGGATCAGACC 2919	OY 2920 TIGACCGACCTITACCTGACCAACAACGCCCTAGGGGACACAGGTGTCCGACTGCTTTGC 2979	OY 2980 AAGCGGCTGAGCCATCCTGGCTGCAACTCCCGAGTCCTCTGGTTATTTGGGATGGACCTG 3039	Qy 3040 AATAAAATGACCCACAGTAGGTGGCAGCGCTTCGAGTAACAAAACCTTATTTGGACATT 3099 	Qy 3100 GGCTGCTGA 3108 	RESULT 6 US-10-407-8666-67	; Sequence 6', Application US/10*0'000; Publication No. US/20040002593A1; Publication No. US/200400000; GENERAL INFORMATION: APPLICANT: Reed, Undn. C.	; APPLICANY: Addam; Addam; TITLE OF INVENTION: PADD Domain-Containing Polypeptides, TITLE OF INVENTION: Encoding Nucleic Acids, and Methods of Use; FILE REFERENCE: 66654-10(LJ 5755)	CURRENT APPLICATION NUMBER: US/10/10/10/10/10/10/10/10/10/10/10/10/10/	; NUMBER OF SEQ ID NOS: 129 ; SEQ YMARE: FastSEQ for Windows Version 4.0 ; SEQ ID NO 67 ; LENGTH: 3218	TYPE: DNA ; ORGANISM: Homo sapiens ; FEATURE: ; NAME: (10)	94.2%; Score 2929;	Best Local Similarity 97.4%; Pred. No. 0; Matches 3020; Conservative 0; Mismatches 0; Indels 81; Gaps 1; Matches 3020; Conservative 0; Mismatches 0; Indels 81; Gaps 1; Ov 1 ATGCTACGAACCGCAGGCACGGCCCTCTGTCGCCTGTCCACTACTTGGAAGAACTC 60	118 ATGCTACGAGCAGGCAGGGCCTCTGTCGCCTGTCCACCTACTTGGAAGAACTC 17	Qy 61 GAGGCTGTGGAACTTGAAGATTCAAGTTATACCTGGGGACCGGACAGAGCTGGGAGAA 120	121	CGGATA 2	Db 298 ATCACCCACTTCGGGCCAGAGGAGGCTGGAGTTGGCTTCTCAGCACTTTGAGCGGGATA 357	, ,

8 8 8 8 8 8	6 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4
121 GGCAAGATCCCTGGGGAAGGATGGAAGAGCCGGTCCCTGGAAATGGCCCAGCTGCTC 180	4.5 GUIGGCCCGTCCTCACTTGGBAACCTCAATGCCTCCTGAAAATTCCGGCTCACTTGTTGAT 299

유

ઠે 셤 ò g

ò g ò g g

ઠે

유

ઠે 셤 ð 셤 ઠે 셤 ઠે 셤 ઠે 셤 ઠે ઠે 셤 δ 요 ò ద

g

ઠે

```
APPLICANT: Padigaru, Muralidhara
APPLICANT: Padigaru, Muralidhara
APPLICANT: Padigaru, Muralidhara
APPLICANT: Paturalan, Meera
APPLICANT: Paturalan, Meera
APPLICANT: Bareelli, Luca
APPLICANT: Shinkers Michard A.
APPLICANT: Shore, David J.
APPLICANT: Spytek, Kimberly A.
APPLICANT: Zerhusen: Bryand J.
APPLICANT: Zerhusen: Bryand J.
APPLICANT: APPLICANT: JOURNAIT ON: The Tappent ic Polypeptides, Nucleic Acids Encoding Same, and Methor TILE REFRENCE: 2104-277 B
APPLICANT: APPLICANTION NUMBER: US/10/162,335
CURRENT PILING DATE: 2002-10-01
FRIOR PAPLICATION NUMBER: 60/295,607
FRIOR APPLICATION NUMBER: 60/295,601
FRIOR PILING DATE: 2001-06-04
FRIOR PILING DATE: 2001-06-04
FRIOR PILING DATE: 2001-06-06
FRIOR APPLICATION NUMBER: 60/296,418
FRIOR PILING DATE: 2001-06-06
FRIOR APPLICATION NUMBER: 60/296,418
FRIOR PILING DATE: 2001-06-06
FRIOR PILING DATE: 2001-06-06
FRIOR PILING DATE: 2001-06-14
FRIOR FILING DATE: 2001-06-14
FRIOR FILING DATE: 2001-06-15
FRIOR PELICATION NUMBER: 60/299,949
FRIOR FILING DATE: 2001-06-15
FRIOR PELICATION NUMBER: 60/299,949
FRIOR FILING DATE: 2001-06-15
FRIOR PELICATION NUMBER: 60/299,949
FRIOR PILING DATE: 2001-06-15
FRIOR APPLICATION NUMBER: 60/290,949
FRIOR PILING DATE: 2001-06-15
FRIOR APPLICATION NUMBER: 60/290,949
FRIOR PILING DATE: 2001-06-15
FRIOR PAPLICATION NUMBER: 60/290,949
FRIOR PILING DATE: 2001-06-15
FRIOR APPLICATION NUMBER: 60/290,949
FRIOR PILING DATE: 2001-06-15
FRIOR PILING DATE: 2001-06-15
FRIOR PAPLICATION NUMBER: 60/290,949
FRIOR FILING DATE: 2001-06-15
FRIOR PAPLICATION NUMBER: 60/290,949
FRIOR PILING DATE: 2001-06-15
FRIOR PAPLICATION NUMBER: 60/290,949
FRIOR FILING DATE: 2001-06-15
FRIOR PAPLICATION NUMBER: 60/290,949
FRIOR FILING DATE: 2001-06-15
FRIOR PAPLICATION NUMBER: 60/290,949
FRIOR FILING DATE: 2001-06-15
FRIOR PAPLICATION NUMBER: 60/290,949
FRIOR FILING DATE: 2001-06-15
FRIOR PAPLICATION NUMBER: 60/290,949
FRIOR FILING DATE: 2001-06-15
FRIOR PAPLICATION NUMBER: 60/290,949
FRIOR PAPLICATION NUMBER: 60/290,949
FRIOR PAPLICATION NUMBER: 60/290,949
FRIOR FILING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ę
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCACCCAACCAGAGAGGGTTGTGCTCCTTGGCGGCAGATGGGCTCTGGAATCAGAAAATC 1341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121 TACATGCTCTACCTGCTGAGTCTGATGCAACCCAAGCCGGGGCCCCGCGCCTCCAGCCC 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61 CAGCAGCAGCTGGAGGGTGGGGGGCTGTTGAGACAGACGTCCAGGACCACCACTGCAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1162 CAGCAGCAGCAGCAGCGTGGGGGGCTGTTGAGACAGACGTCCAGGACCACCACTGCAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TACATGCTCTACCTGCTGAGTCTGATGCAACCCAAGCCGGGGCCCCCGGCGCCTCCAGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1; Indels 12; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 17; Length 1800;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 1705.4; pred. No. 0; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1102 GAGCCTCTCTTCACCATGTGCTTCGTCCCCCTGG
                                                                                                                                                                     Li, Li
MacDougall, John R.
Malyankar, Uriel M.
Millet, Isabelle
Padigaru, Muralidhara
Gangolli, Esha A.
Gerlach, Valerie
Gorman, Linda
Guo, Xiaojia (Sasha)
Hjalt, Tord
Kekuda, Ramesh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 99.3%;
Matches 1748; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; NAME/KEY: CDS
; LOCATION: (16)..(1762)
US-10-162-335-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQ ID NO 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1282
                                                                               APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2979
                                                                                                                                                                  2379
                                                                                                                                                                                                                                                                               2439
                                                                                                                                                                                                                                                                                                                                                                                           2499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3039
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGGGTGCTGCTGTGTGAGGGCCTCAGGCATCCCACGTGCAAGCTCCAGACCCTGCGG 2679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2900 -------GGCTGGATAGC 2910
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AATAAAATGACCCACAGTAGGTTGGCAGCGCTTCGAGTAACAAAACCTTATTTGGACATT 3099
                                                                                                                                                                                            2542 AGGCTGCAGATGATTCAGTTGAGGAAGTGTCAGCTGGAGTCCGGGGCTTGTCAGGAGATG 2601
                                                                                                                                                                                                                                                                                                        2602 GCTTCTGTGCTTGGCACCCACATCTGGTTGAGTTGGACCTGACAGGAAATGCACTG 2661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2842 GGGGTGCTGCTGCTGTGTGAGGGCCTCAGGCATCCCACGTGCAAGCTCCAGACCCTGC-- 2899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2740 AACCACAACCTCCGGGAGCTGGACTTGAGTTTCAACGACCTGGGAGACTGGGGCCTGTGG 2799
  2482 AACGGCGTTGGATTCCCAGGCATGATGCTGCTTTGCGAGGCCTGCGGCGTTCCCCAATGC
                                                                                                                                                                                                                                                                                                                                                                                        GAGGATTTGGGCCTGAGGTTACTATGCCAGGGACTGAGGCACCCAGTCTGCAGACTACGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2911 TGTGGCCTCACAGCCAAGGCTTGTGAGAATCTTTACTTCACCCTGGGGATCAACCAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTGACCGACCTTTACCTGACCAACAACGCCCTAGGGGACACAGGTGTCCGACTGCTTTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGGCTGCAGATGATTCAGTTGAGGAAGTGTCAGCTGGAGTCCGGGGCTTGTCAGGAGATG
                                                                                                                                                                                                                                                                               GCTTCTGTGCTCGGCACCAACCCACATCTGGTTGGACCTGACAGGAAATGCACTG
                                                                                                                                                                                                                                                                                                                                                                                                                           GAGGATTTGGGCCTGAGGTTACTATGCCAGGGACTGAGGCACCCAGTCTGCAGACTACGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACTITIGEGECTGAAGATCTGCCGCCTCACTGCTGCTGCCTGTGACGAGCTGGCCTCAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACTTTGTGGCTGAAGATCTGCCGCCTCACTGCTGCTGCTGTGGACGAGCTGGCCTCAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTCAGTGTGAACCAGAGCCTGAGAGAGCTGGACCTGAGCCTGAATGAGCTGGGGGACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  crcadigidaaccadadcercadadacerdaaccerdaacerdaardadeerdadaacerc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2680 TTGGGCCATCTGCCGGCTGGGCTCTGTGAGGGTCTTTCTGTGGTGCTCCAGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2860 TGTGGCCTCACAGCCAAGGCTTGTGAGAATCTTTACTTCACCCTGGGGATCAACCAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAGCGGCTGAGCCATCCTGGCTGCAAACTCCGAGTCCTCTGGTTATTTGGGATGGACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2800 TTGCTGGCTGAGGGGCTGCAACATCCCGCCTGCAGACTCCAGAAACTGTGGCTGGATAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-10-162-335-21
; Sequence 21, Application US/10162335
; Publication No. US20040009480A1
; GENERAL INFORMATION:
; APPLICANT: Anderson, David W.
; APPLICANT: Baumgartner, Jason C.
; APPLICANT: Boldog, Ferenc L.
; APPLICANT: Casman, Stacie J.
; APPLICANT: Edinger, Shlomit R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGCTGCTGA 3108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              decrecres 3159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2900 -----
                                                                                                                                                               2320
                                                                                                                                                                                                                                                                               2380
                                                                                                                                                                                                                                                                                                                                                                                      2440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3100
                                                      2260
                                                                                                                                                                                                                                                                                                                                                                                                                                            2662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2722
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3091
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3151
```

```
Sequence 24660, Application US/10029386
| Publication No. US20030194704A1
| Publication No. US20030194704A1
| Publication No. US20030194704A1
| APPLICANT: Penn, Sharron G.
| APPLICANT: Rank, David R.
| APPLICANT: Hanzel, David R.
| APPLICANT: Hanzel, David R.
| TITLE OF INVENTION: EXPRESSION ANALYSIS TWO
| TITLE OF INVENTION: EXPRESSION ANALYSIS TWO
| FILE REFERENCE: AEOMICA-X-2
| CURRENT APPLICATION NUMBER: US/10/029,386
| CURRENT APPLICATION NUMBER: US/10/029,386
| CURRENT APPLICATION NUMBER: 2001-12-20
| NUMBER OF SEQ ID NOS: 34288
| SOFTWARE: Annomax Sequence Listing Engine vers. 1.1
| SEQ ID NO 24660
| LENGTH: 1704
                                                                      1017
                                                                                                    2487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                2847
                                           2427
                                                                                                                                1077
                                                                                                                                                              2547
                                                                                                                                                                                          1137
                                                                                                                                                                                                                                                                                2667
                                                                                                                                                                                                                                                                                                                                           2727
                                                                                                                                                                                                                                                                                                                                                                        1317
                                                                                                                                                                                                                                                                                                                                                                                                    2787
                                                                                                                                                                                                                                                                                                                                                                                                                                 1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2907
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3087
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1677
                                                                                                                                                                                                                       2607
                                                                                                                                                                                                                                                   1197
                                                                                                                                                                                                                                                                                                            1257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CGACTGCTTTGCAAGCGGCTGAGCCATCCTGGCTGCAACTCCGAGTCCTCTGGTTATTT
CATCCCCAATGCAGGCTGCAGATGATTCAGTTGAGGAAGTGTCAGCTGGAGTCCGGGGCT
                                            TGTCAGGAGATGGCTTCTGTGCTCGGCACCAACCCACATCTGGTTGAGTTGGACCTGACA
                                                            TGTCAGGAGATGGCTTCTGTGCTTGGCACCACCCCACATCTGGTTGAGTTGGACCTGACA
                                                                                                    GGAAATGCACTGGAGGATTTGGGCCTGAGGTTACTATGCCAGGGACTGAGGCACCCAGTC
                                                                                                                     GGAAATGCACTGGAGGATTTGGCCTGAGGTTACTATGCCAGGGACTGAGGCACCCAGTC
                                                                                                                                                             TGCAGACTACGGACTTTGTGGCGTGAAGATCTGCCGCCTCACTGCTGCTGCTGTGACGAG
                                                                                                                                                                            1078 TGCAGACTACGGACTTTGTGGCTGAAGATCTGCCGCCTCACTGCTGCTGCTGTGACGAG
                                                                                                                                                                                                                                                     1138 CTGGCCTCAACTCTCAGTGTGAACCAGAGCCTGAGAGAGCTGGACCTGAGCCTGAATGAG
                                                                                                                                                                                                                                                                                  CTGGGGGACCTCGGGGTGCTGCTGTGTGAGGGCCTCAGGCATCCCACGTGCAAGCTC
                                                                                                                                                                                                                                                                                                 CTGGGGGACCTCGGGGTGCTGCTGTGTGAGGCCTCAGGCATCCCACGTGCAAGCTC
                                                                                                                                                                                                                                                                                                                                             CAGACCCTGCGGTTGGGCATCTGCCGGCTGGGCTCTGCCGCCTGTGAGGGTCTTTCTGTG
                                                                                                                                                                                                                                                                                                                                                          CAGACCCTGCGGTTGGGCATCTGCCGGCTGGGGTCTCTGCCGCCTGTGAGGGTCTTTCTGTG
                                                                                                                                                                                                                                                                                                                                                                                                      GTGCTCCAGGCCAACCACAACCTCCGGGAGCTGGAGTTTCAACGACCTGGGAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                       GTGCTCCAGGCCAACCACAACCTCCGGGAGCTGGACTTGAGTTTCAACGACCTGGGAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGGGGCCTGTGGTTGCTGGCTGAGGGGCTGCAACATCCCGCCTGCAGACTCCAGAAACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1378 TGGGGCCTGTGGGTTGCTGGGGGGGGGGCTGCAACATCCCGCCTGCAGACTCCGAAACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGGCTGGATAGCTGTGGCCTCACAGGCTAGTGAGAATCTTTACTTCACCCTGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1438 TGGCTGGATAGCTGTGGCCTCACACGCCAAGGCTTGTGAGAATCTTTACTTCACCCTGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2908 ATCAACCAGACCTTGACCGACCTTTACCTGACCAACAACGCCCTAGGGGACACAGGTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATCAACCAGACCTTGACCGACCTTTACCTGACCAACGACCCCTAGGGGACACAGGTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGACTGCTTTGCAAGCGGCTGAGCCATCCTGGCTGCAAACTCCGAGTCCTCTGGTTATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGGATGGACCTGAATAAATGACCCACAGTAGGTTGGCAGCGCTTCGAGTAACAAAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1618 GGGATGGACTGAATAAAATGACCCACAGTAGGTTGGCAGCGCTTCGAGTAACAAAAACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TATTTGGACATTGGCTGCTGA 1698
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TATTTGGACATTGGCTGCTGA 3108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 10
US-10-029-386-24660/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2848
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3088
                                                                                                                                                                                                                       2548
                                                                                                                                                                                                                                                                                                              1198
                                                                                                                                                                                                                                                                                                                                           2668
                                                                                                                                                                                                                                                                                                                                                                          1258
                                                                                                                                                                                                                                                                                                                                                                                                      2728
                                                                                                                                                                                                                                                                                                                                                                                                                                   1318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1678
                                            2368
                                                                        958
                                                                                                    2428
                                                                                                                                 1018
                                                                                                                                                              2488
                                                                                                                                                                                                                                                                                  2608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                2788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3028
                868
                                                                8 B
                                                                                                                            원
                                                                                                                                                              à
                                                                                                                                                                                    셤
                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                           원
                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    쉱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             원
               8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                           1467
                                                                                                                                                                                                                                       1527
                                                                                                                                                                                                                                                                                                                                                          1647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2067
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2187
                                                                                                                                                                                                                                                                                                1587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2007
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2127
                                                                                                                                                                                                                                                                                                                                                                                                                     AAGAGTCTCTGCTGGAAGGTCTCGCCGCACATCAAGATGGACCTGTTGCAGTGGATCCAA 1707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGCAGGAGCGCCCAGGTGCTGCACTTGTATGGCGCCACCTACAGCGCGGGGGAAGAC 1947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGCTCAGCCTGCGAGGACCTCTCTGCAGCTCTCATAGCCAATAAGAATTTGACAAGGATG 2247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2308 CATCCCCAGTGCAGGCTGCAGATGATTCAGTTGAGGAAGTGTCAGCTGGAGTCCGGGGCT 2367
                                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                                        240
                                                                                                                                                                                                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAICTCAGTGGCAACGGCGTTGGATTCCCAGGCATGATGCTGCTTTGCGAGGGCCTGCGG 2307
                                                                                                                                                                                                                                                                    120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   897
                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TTGTACGAGATCCAGGAGGAGTTTATCCAGCAGGCCCTGAGCCACTTCCAGGTGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTTCTGCTGGACGCCTACAGTGAACATCTGGCAGCGGCCCTGTGCACCTGAACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGCTCAGCCTGCGAGGACCTCTCTGCAGCTCTCATAGCCAATAAGAATTTGACAAGGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GATCTCAGTGGCCAACGGCGTTGGATTCCCAGGCATGATGCTGCTTTGCGAGGGCCTGCG
                                                                                                                                                                                                                                                      121 CCAGACCAGGACGTGACCAGGCTGTTGAACCGAGTACGCGTTTTCTGAAAGGAGCTTCCTG
                                                                                                                                                                                                                                                                                                                                                          GCACTCACCAGCGCTTCCTGTTTGGACTCCTGAACGAGGAGCCAGGAGCCACCTGGAG
                                                                                                                                                                                                                                                                                                                                                                        AAGAGTCTCTGCTGGAAGGTCTCGCCGCACATCAAGATGGACCTGTTGCAGTGGATCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGCAAAGCTCAGAGGGCTCCACCTGCAGCAGGGCTCCTTGGAGTTCTTCAGCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        481 TGCAGGAGCGCCCAGGTGCTGCACTTGTATGGCGCCCACCTACAGGCGCGGGACGGGAAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGCGCGAGGTGCTCCGCAGGAGCGCACACGCTGTTGGTGCAGCTCAGACCAGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGCGCGAGGTGCTCCGCAGGAGCGCACACGCTGTTGGTGGTGCAGCT---ACCAGAGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGACTCAGACACCCCAACTGCAAACTTCAGAACCTGAGGCTGAAGAGGTGCCGCATCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGACTCAGACCCCCAACTGCAAACTTCAGAACCTGAGGCTGAAGAGGGGGCGCCATCTCC
                                                                                                                                                                           1408 ATGAACATCTTCCAGAAGGACATCAACTGTGAGAGGTACTACAGCTTCATCCACTTGAGT
                                                                                                                                                                                            1 ATGAACATCTTCCAGAAGGACATCAACTGTGAGAGGTACTACAGCTTCATCCACTCTGAGT
                                                                                                                                                                                                                                       CCAGACCAGGACGTGACCAGGCTGTTGACCGAGTACGCGTTTTCTGAAAGGAGCTTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGCAAAGCTCAGAGCGACCCTGCACCCTGCAGGCTCCTTGGAGTTCTTCAGCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        361 TTGTACGAGATCCAGGAGGAGGAGTTTATCCAGCGGCCCTGAGCCACTTCCAGGTGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Grégreadaacarrecerceaagaregageacargerercercerrerergaagee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GITCTGCTGGACGCCTACAGTGAACATCTGGCAGCGGCCCTGTGCACCAATCCAAACCTG
                                                                                                                                                  Gaps
                                                                                                                   2158;
                                                                                                                                                3;
                                                                                                                     Length
                                                                                                                                               2; Indels
                                                                                                                     18;
                                                                                                                   В
                                                                                                                  Query Match 54.1%; Score 1681.8; Best Local Similarity 99.7%; Pred. No. 0; Matches 1696; Conservative 0; Mismatches
                                                       ; NAME/KEY: misc feature
; OTHER INFORMATION: Incyte ID No: 429930CB1
US-10-467-397-19
               TYPE: DNA
ORGANISM: Homo sapiens
   LENGTH: 2158
                                                                                                                                                                                                                                       1468
                                                                                                                                                                                                                                                                                              1528
                                                                                                                                                                                                                                                                                                                                                                                                                     1648
                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2248
                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                          1588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2128
                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             쉱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                            ò
                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
```

```
1789
                                                                                                                                               1489
                                                                                                                                                                              1549
                                                                                                                                                                                                               1609
                                                                                                                                                                                                                                              1669
                                                                                                                                                                                                                                                                             1729
                1249
                                               1309
                                                                                1369
                                                                                                               1429
                                                                                                                               565
                                                                                                                                                               505
                                                                                                                                                                                               445
                                                                                                                                                                                                                              385
                                                                                                                                                                                                                                                              325
                                                               685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PROTEIN
                                                                                                                                                                                                                                                                                                                                                                             AGATGGAGCACATGGTCTCCTCTCTGAAGCGCTGCAGGAGCGCCCCAGG-TGCTG
                                                                                                                                                                                                                                                                                                                                                                                                             CACTIGIA - TGGCGCCACCTA CAGCGCGGGACGGGAAGACCGCGCGCGAGGTGCTCCGCAGG
                                                                                                                                                                                                                                                                                                                                                                                      CGCCGCACATCAAGATGGACCTGTTGCAGTGGATCCAAAGCAAAAGTTCAGAGCGACGGTT
                                                                                                                                                                                                                                                                                       CCACCCTGCAGGCGCCCCTTGGAGTTCTTCAGCTGCTTGTACGAGATCCAGGAGGAGG
                                                                                                                                                                                                                                                                                                                       AGTITATCCAGCAGGCCTGAGCCACTTCCAGGTGATCGTGGTCAGCAACATTGCCTCCA
                                                                                                                                                                                                                                                                                                                                                       TCAACTGTGAGAGGTACTACACCTTCATCCACTTGAGTTTCCAGGAATTCTTTGCAGCTA
                                                                                                                                                        TGTACTATATCCTGGACGAGGGGGGGGGGCAGGCCCAGGACCAGGACGTGACCAGGC
                                                                                                                                                                                         TGTTGACCGAGTACCGCGTTTTCTGAAAGGAGCTTCCTGGCACTCACCAGCCGCTTCCTGT
                                                                                                                                                                                                                         CCCTGGTGTGGTGGTGTGTACCTGCCTCCAGCAGCAGCTGGAGGGTGGGGGCTGT
               AACCCAAGCCGGGGCCCCCCCCCCCCCCAACCAAGAGGGGTTGTGCTCT
                                                         Sequence 1, Application US/10028374
Sequence 1, Application US/10028374
Sequence 1, Application US/10028374
Sequence 1, Application No. US20030143706A1
GENERAL INFORMATION:
APPLICATION:
FAPLICATION:
TITLE OF INVENTION:
PREDOMINATELY IN BONE MARROW, HIRREMI
TITLE OF INVENTION:
PREDOMINATELY IN BONE MARROW, HIRREMI
CURRENT APPLICATION UNBER: US/10/028,374
CURRENT FILING DATE: 2001-12-20
PRIOR PELLING DATE: 2001-12-20
NUMBER OF SEQ ID NOS: 22
                                                                                                                                                                                                                                                                                                                                                                                                                                                AGCGCACACGCTGTTGGTGCAGCT 1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                               н
                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 11
US-10-028-374-1
                                                                                                                                                                                                                                                                                   1670
                                                                                                                                                                                                                                                                                                  324
                                                                                                                                                                                                                                                                                                                                  264
                                                                                                                                                                                                                                                                                                                                                  1790
                                                                                                                                                                                                                                                                                                                                                                                   1850
                                                                                                                                                                                                                                                                                                                                                                                                                  1909
                                                                                                                                                                                                                                                                                                                                                                                                                                                   1968
                                                                                                                                                                                                                                                   1610
                                                                                                                                                                                                                                                                                                                   1730
                                                                                                                                                                                                                                                                                                                                                                  204
                                                                                                                                                                                                                                                                                                                                                                                                  144
                                                                                                                                                                                                                                                                                                                                                                                                                                  84
                                    804
                                                                                                                                                   1430
                                                                                                                                                                                   1490
                                                                                                                                                                                                   504
                                                                                                                                                                                                                   1550
                                                                                                                                                                                                                                                                  384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 24
                                                    1250
                                                                                   1310
                                                                                                    684
                                                                                                                   1370
                                                                                                                                    624
                                                                                                                                                                   564
                   1190
                                                                    744
     864
                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                 원
                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                  8 8
                                                                                                                                                                                                                                              8 8
                                                                                                                                                                                                                                                                                 S a
                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                               g
                               ል ል
                                                                셤
                                                                              8
                                                                                               g
                                                                                                                 8 B S
                                                                                                                                                               g
                                                                                                                                                                                   8
     음 장
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCCTGGTGTGCTGGTGTGTACCTGCCTCCAGCAGCAGCTGGAGGGTGGGGGGCTGT 1189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1045
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1009
                                                                                                                                                                                                                                                                                                                                                                           1225
                                                                                                                                                                                                                                                                                                                                                                                                            1165
                                                                                                                                                                                                                                                                                                                                                                                                                                            1105
                                                                                                                                                                                                                                                                            1405
                                                                                                                                                                                                                                                                                                                                           1285
                                                                                                                                                                                                                                                                                                     949
                                                                                                                                            1645
                                                                                                                                                                            1585
                                                                                                                                                                                                            1525
                                                                                                                                                                                                                                            1465
                                                                                                                                                                                                                                                                                                                                                                                            829
                                                                                                                                                                                                                                                                                                                                                                                                                            889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          865
                                                                                                             ä
                                                                                                                                                                                                                                                                                                                           709
                                                                                                                                                                                                                                                                                                                                                            769
                                                                                                                                                                                                                                                             589
                                                                                                                                                                                                                                                                                            649
                                                                                                                                                            409
                                                                                                                                                                                             469
                                                                                                                                                                                                                             529
                                                                                                                             349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACGATCCTCAGGGACCCTGGTGCCTCTGCTGGGAGGAGAAACGGCCCACGGAGCTGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCTTCTCGAGGCAGAAAGGAATACTTCTACAAGTATTTCCACAATGCAGAGCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCTTCTCTGAGGCAGAAAGGAAGGAATACTTCTACAAGTATTTCCACAATGCAGGGAGG
                                                                                                                                                                                                                                                                                                                                      TTAACAGCTTAATTCGGAAGAAGCTGCTCCCTGAGCTATCTTTGCTCATCACCACGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCACGGCTTTGGAGAAGCTCCACCGTCTGCTGGAGCACCCCCAGGCATGTGGAGATCCTGG
                                                                                                                                      AGGAGCACTCAAACCCCATGCAGGTCCAGCAGCAGCTTCTGGACACAGGCCGGGGACACG
                                                                                                                                                                                                       AGGAGCGCCCCGAGCCACCGCGCACCCTGGTCATGCAAGGCGCGCGGGGGTAGGCAAGT
                                                                                                                                                                                                                                                                     CCATGCTGGCACACAAGGTGATGCTGGACTGGGCGGACGGGAAGCTCTTCCAAGGCAGAT
                                                                                                                                                                                                                                                                                                                           TTGATTATCTTCTACATCAACTGCAGGGAGATGAACCAGAGTGCCACGGAATGCAGCA
                                                                                                                                                                                                                             CGAGGACCGTGGGACACCAGGCTAGCCCCATCAAGATAGAGACCCTCTTTGAGCCAGACG
                                                                                                                             ATCCCCAGGAAACTACAGGGACTATGTCCGCAGGAAATTCCGGGCTCATGGAAGACCGCA
                                                                                                              Gaps
                                                                                                             2;
                                                                                               Length 1704;
      CRGANISM: Homo sapiens
CRGANISM: Homo sapiens
FEATURE:
CTHER INFORMATION: MAP TO AC008753.5
CTHER INFORMATION: EXPRESSED IN HELA, SIGNAL = 0.37
CTHER INFORMATION: EXPRESSED IN FETAL LIVER, SIGNAL = 1.1
CTHER INFORMATION: EXPRESSED IN FETAL LIVER, SIGNAL = 1.1
CTHER INFORMATION: EXT HUMAN HIT: AM673661.1, EVALUE 0.00e+00
CTHER INFORMATION: SWISSEROT HIT: 933076, EVALUE 4.00e-13
US-10-029-386-24660
                                                                                                              Indels
                                                                                                             ö
                                                                                               DB 16;
                                                                                              Score 1680; DE
Pred. No. 0;
0; Mismatches
                                                                                              Query Match 54.1%;
Best Local Similarity 99.9%;
Matches 1702; Conservative (
                                                                                                                                                                                                                                                                                                                                              1344
                                                                                                                                                                                                                                                                                                                                                                                               770
                                                                                                                                                                                                                                                                                                                                                                                                              1224
                                                                                                                                                                                                                                                                                                                                                                                                                                               1164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1044
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1010
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1130
                                                                                                                                                                                                                                                                                                               1404
                                                                                                                                                                                                                                                                                                                                                               710
                                                                                                                                                                                                                                                                                                                                                                               1284
                                                                                                                                                                                                                                                                                                                                                                                                                               830
                                                                                                                                                                                                                                                                                                                                                                                                                                                               890
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               950
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               984
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              924
                                                                                                                               290
                                                                                                                                                                                                                1584
                                                                                                                                                                                                                                                1524
                                                                                                                                                                                                                                                                                                                               650
                                                                                                                                                 1704
                                                                                                                                                                350
                                                                                                                                                                                1644
                                                                                                                                                                                                                               470
                                                                                                                                                                                                                                                                530
                                                                                                                                                                                                                                                                                               590
                                                                                                                                                                                                410
                                                                                                                                                                                                                                                                                                                                                          8 6 8 6 8 6 8 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8 8 8
                                                                                                                                                                             g
                                                                                                                                                                                                            g
                                                                                                                                                                                                                           8 %
                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                          යි දි
                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                         S G
                                                                                                                                  ò
                                                                                                                                              g
                                                                                                                                                                ò
                                                                                                                                                                                             ð
```

265

1908

1961

25

82

EXPRESSED

1189 1827 1249 1887	1309	1369 CACGGCCTA 2007 CACGGCCTA	/ 1429 ATCAACTGTGAGAGGTACTACAGCTTCATCCACTTGAGTTTCCAGGAATTCTTTGCAGCT 2067 ATCAACTGTGAG	7 1489 ATGTACTATATCCTGGACGAGGGGAGGGCGGGGCAGGCCCAGACCAGGACGTGACCAGG	1549 CTGTTGACCGAGTACGGTTTTCTGAAAGGAGCTTCCTGGCACTCACCAGCCGCTTCCTG	1609 TITGGACTCCTGAACGAGGACACCAGGAGCCACCTGGAGAAGACTCTCTGCTGGAAGGTC	1669 TCGCCGCACATCAAGATGGACCTGTTGCAGTGGATCCAAAGCAAAGCTCAGAGCGACGGC	1729	1789 GAGTITATCCAGCACGCCGAGCCACTTCCAGGTGATCGTGGGTCACAACATGCCTCC	1849 AAGATGGAGCACATGGTTCTGTTCTGAAGCGCTGCAGGAGCGCCCAGGTGCTG	1909 CACTTGTATGGCGCCACCTACAGCGCGGAAGACCGCGCGGGGGTGCTCCGCAGGA	1969	2029 GAACATCTGGCAGCGCCCTGTGCACCAATCCAAACCTGATAGAGCTGTCTGT	2089 AATGCCCTGGGCGGGGGGTGAAGCTCTCTGTCAAGGACTCAGACACCCCAACTGC	2149 AAACTTCAGAACCTGA	7	2709 TTGGCCAGGTATGATGGCTCACGCCTGTAATTCCAGCACTTTGGGAGGCCCAGATGGGGA 2
& a & a	·	강 A 	& a	& a	<i>ኤ</i> ብ	& &	& A	& ଶ	۵ م 	<i>১</i> ব	ò a	& a	ò A	상 옵	<i>&</i> ₽	<i>ŏ</i> 	점
SOPTWARE: Patentin version 3.0 SEQ ID NO 1 LENGTH: 4931 FYPE: DNA ORGANISM: homo sapiens FRATURE: FRATURE: LOCATION: (1320)(2666) US-10-028-374-1	Query Match Best Local Similarity 81.0%; Pred. No. 0; Matches 2160; Conservative 0; Mismatches 5; Indels 501; Gaps 4;	Qy 289 GATCCCCAGGAAACCTACAGGACTATGTCCGCAGGAAATTCCGGCTCATGGAAGACCGC 348 Db 1021 GATCCCCAGGAAACCTACAGGAACTATGTCCGCAGGAAATTCCGGCTCATGGAACCCGC 1080	Qy 349 AATGCGCCTAGGGAATGTGTCAACCTCAGCCACCGGTACACCTGGTG 408		469 GCGAGGACCGTGGGACACCCAGGCTAGCCCCATCAAGATAGAGACCCTCTTTGAGCCAGAC	529 GAGGAGCGCCCGGACCACGCGCACCGGGCCGCGCGCGCG	589 TCCATGCTGGCACACAAGGTGATGCTGGACGGGGGGGGGACGGGAAGCTCTTCCAAGGCAGA	1314	1314	769 CGAGTTCCCGAGCCCTCCTTTCATCGAGCCCACGCCCCCTCCAAGCCTTCTTTCT	829 CACGATCCTCAGGACCCTGGTGCTCTGGAGAGAGAAACGGCCCAGGAGCTGCTT	CTTAACAGCTTAATTCGGAAGAAGCTGCTCCTGAGGTATCTTTGCTCATCACCACACGCGCCACTAACAGCTTAACAGCTTAATAGCTGTTCCTGAGCTATCTTTGCTCATCACCACACGC	949 CCCACGCTTTGGAGAAGCTCCACCGTCTGGAGACCCCCAGGCATGTGGAGATCCTG	1009 GGCTTCTCTGAGGCAGAAGGAATACTTCTACAAGTATTTCCACAATGCAGAGCAG	1069 GCGGCCCAAGTCTCCATTACGTGAGGACACAACGAGCCTCTTCACATGCAGAGCAGC	1/0/ GCGGGCCLAAGICTICAATTACGIGAGGGCAACGAGCCICTCTCACCATGIGCTICGIC	Db 1767 CCCTGGTGTGGGTGTGTGTGCTGCTCCAGGGGGGGGGGG

```
1827 TIGAGACAGACGTCCAGGACCACTGCAGTGTACATGCTCTACCTGCTGAGTCTGATG 1886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAACCCAAGCGGGGGCCCGGCGCCTCCAGCCCCACCAGAGAGGGTTGTGCTCC 1308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCCACGGCTTTGGAGAAGCTCCACCGTCTGCTGGAGCACCCCAGGCATGTGGAGATCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGCTTCTCTGAGGCAGAAAGGAAGGAATACTTCTACAAGTATTTCCACAATGCAGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1647 GGCTTCTCTGAGGCAGAAAGGAAGGAATACTTCTACAAGTATTTCCACAAIGCAGAGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gegggegaagrerreaarracgreagggacaacgagcererrereaccargregere
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TIGAGACAGACGACACCACTGCAGTGTACATGCTCTACCTGCTGAGTCTGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1707 GCGGGCCAAGTCTTCAATTACGTGAGGGAAACGAACGTCTCTTCACCATGTGCTTCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCCCTGGTGTGCTGGTGTACCTGCCTCCAGCAGCAGCTGGAGGGTGGGGGGGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTTAACAGCTTAATTCGGAAGAAGCTGCTCCCTGAGCTATCTTTGCTCATCACCACGG
                                                                                                                                                                                   AAGAACACTCAAACCCCATGCAGGTCCAGCAGCTTCTGGACACAGGCGGGGACAC
                                                                                                                                                                                                                                     GCGAGGACCGTGGGACACCAGGCTAGCCCCATCAAGATAGAGACCCTCTTTGAGCCAGAC
                                                                                                                                                                                                                                                  1261 GAGGAGCGCCGGAGCCACCGCGCACCGTGTCATGCAAGGCGCGGCACGGAT-----
                                                                                                                                                                                                                                                                                                                                       589 TCCATGCTGGCACACAAGGTGATGCTGGACTGGGCGGACGGGAAGCTCTTCCAAGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                              -----AGGGAGATGATGAACCAGAGGAATGCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                          709 AIGCAAGACCICAICIICAGCIGCCIGAGCCCAGCGCGCCCICICCAGGGGCTCAIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGAGTTCCCGAGCGCCTCCTTTTCATCGACGGCTTCGATGAGCTCAAGCCTTCTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1407 GAGTICCCGAGCGCCTCCTITICATCATCACGGCTTCGATGAGCTCAAGCCTTCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CACGATCCTCAGGGACCCTGGTGCCTCTGGGAGGAGAAACGGCCCACGGAGCTGCTT
                                                                                                                                                                                                                                                                                                                                                                                        649 ITTGATTATCTTCTACATCAACTGCAGGGAGATGAACCAGAGTGCCACGGAATGCAGG
                                                                                GATCCCCAGGAAACCTACAGGGACTATGTCCGCAGGAAATTCCGGCTCATGGAAGACCGC
                                                         Gaps
                                                         501;
                                Length 4931;
                                                         Indels
                                                         'n
                                  DB 16;
                                 ; Score 1616; DB
; Pred. No. 0;
0; Mismatches
                                 52.0%;
nilarity 81.0%;
Conservative 0
                                                 Similarity
; OTHER INFORMATION:
US-10-183-770-1
                                     Query Match
Best Local Simi
Matches 2160;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  769
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1069
                                                                                                                                                                                                                                                                                                                                                                                                                         1314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      949
                                                                                                                                                                                                                                                                                             529
                                                                                                                                                                                                                                                                                                                                                                       1314
                                                                                       289
                                                                                                                                                                                          409
                                                                                                                                                                                                                                             469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                          & a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          쉱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       성음
                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                         ઠ
                                                                                                           g
                                                                                                                                        ò
                                                                                                                                                              g
                                                                                                                                                                                          ð
                                                                                                                                                                                                              g
                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 1, Application US/10183770

Sequence 1, Application US/10183770

Sequence 1, Application No. US20030180812A1

GENERAL INFORMATION:

APPLICATION:

TITLE OF INVENTION:

FILE REFERENCE:

FILE REFERENCE:

PRIOR PILING DATE: 2002-06-27

PRIOR APPLICATION NUMBER: US 60/257,773

PRIOR PILING DATE: 2001-12-20

FRIOR PELING DATE: 2001-12-20

FRIOR PELING DATE: 2001-12-20

FRIOR PELING DATE: 2001-12-20

FRIOR PILING DATE: 2001-12-20

FRIOR PILING DATE: 2001-13-3

SOFTWARE: PATENTING NAMBER: US 10/028,374

FRIOR FILING DATE: 2001-13-3

SOFTWARE: PATENTING DATE: 2001-13-3

SOFTWARE: PATENTING DATE: 2001-13-3

LENGTH 4931
                                                                                                                                                                                                                                                                                                                                                                                                                                                               2599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              rgaargaggreeggaccrcegegerecrecrecrerereaggeccrcaegcarccreer 2659
                                                                                                                                                                                                                                                                                                                                                            2479
                                                                                                                                                                                                                                                                                                                                                                                    3248
                                                                                                                                                                                                                                                                                                                                                                                                               2539
                                                                                                                                                                                                                                                                                                                                                                                                                                      3308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2239
                                                                                                                                                                      2949 GCATCTCCAGCTCAGCCTGCAGACCTCTCTGCAGCTCTCATAGCCAATAAAAATTTGA 3008
                                                                                                                                                                                                         2299
                                                                                                                                                                                                                                  3068
                                                                                                                                                                                                                                                          2359
                                                                                                                                                                                                                                                                                  3128
                                                                                                                                                                                                                                                                                                            2419
                                                                                                                                                                                                                                                                                                                                    3188
                                                                                                                            2889 AGGCCAAGGCAGGAGGATTGCTTCAACCCAGGAGGCAGAGGGTTGTGGCTGAAGAGAGTGCC
                                                                                                                                                                                                         2240 CAAGGATGGATCTCAGTGGCAACGGCGTTGGATTCCCAGGCATGATGCTGCTTTGCGAGG
                                                                                                                                                                                                                               3009 CAAGGATGCATCTCAGTGGCAACGCGTTTGCATTCCCCAGGCATGATGCTGTTTGCGAGG
                                                                                                                                                                                                                                                          GCCTGCGGCATCCCCAGTGCAGGCTGCAGATGATTCAGTTGAGGAAGTGTCAGCTGGAGT
                                                                                                                                                                                                                                                                         3069 GCCTGCGGCATCCCCAATGCAGGCTGCAGATGATTCAGTTGAGGAAGTGTCAGCTGGAGT
                                                                                                                                                                                                                                                                                                                        CCGGGGCTTGTCAGGAGATGCTTCTGTGCTTGGCACCAACCCACATCTGGTTGAGTTGG
                                                                                                                                                                                                                                                                                                                                                            ACCTGACAGGAAATGCACTGGAGGATTTGGGCCTGAGGTTACTATGCCAGGGACTGAGGC
                                                                                                                                                                                                                                                                                                                                                                           ACCCAGTCTGCAGACTACGGACTTTGTGGCTGAAGATCTGCCGCCTCACTGCTGCTGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTGACGAGCTGGACTCTCAGTGTGAACCAGAGCCTGAGAGAGCTGGACCTGAGCC
                                                                                                                                                                                                                                                                                                            CCGGGGCTTGTCAGGAGATGGCTTCTGTGCTCGGCACCAACCCACATCTGGTTGAGTTGG
                          2769 GGATCACTTGACCCAGGAGTTCAAGACCAGCCTGGCCAACATGGTGAAACCCCATCTTA
                                                                                                                                                       2180 GCATCTCCAGCTCAGCCTGCGAGGACCTCTGCCAGCTCTCATAGCCCAATAAGAATTTGA
                                                                            2829 CTAAAAATACCAAAATGAGCCAGGCATGGTGGCACACGTCTGTAAGCCCAGCTACTCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3429 GCAAGCTCCAGACCCTGCGGTGAGTC 3454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2660 gcaagcrccagaccrgcggrrgggc 2685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURE:
NAME/KEY: CDS
LOCATION: (1320)..(2666)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: DNA
ORGANISM: homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 12
US-10-183-770-1
                                                                                                                                                                                                                                                                                                                                        3129
                                                                                                                                                                                                                                                                                                                                                                  2420
                                                                                                                                                                                                                                                                                                                                                                                           3189
                                                                                                                                                                                                                                                                                                                                                                                                                  2480
                                                                                                                                                                                                                                                                                                                                                                                                                                             3249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2540
                                                                                                                                                                                                                                                              2300
                                                                                                                                                                                                                                                                                                                 2360
                                                         2165
                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                               à
                                                                                                                              셤
                                                                                                                                                                               g
                                                                                                                                                                                                             ò
                                                                                                     ò
                                                                                                                                                           ò
         ò
                              유
                                                         ò
                                                                            셤
```

1466

888

1346

768

708

1313

648

528

1706

1760

661

1820

```
2361 CGGGGCTTGTCAGGAGATGGCTTCTGTGCTCGGCACCAACCCACATCTGGTTGAGTTGGA 2420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCTGCGGCATCCCCAGTGCAGGCTGCAGATGATTCAGTTGAGGAAGTGTCAGCTGGAGTC 2360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            gaagegerachagaagegecepageracrigerarrararagegececarerracagegegegaege 1940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gaangagergegegegergergergergergergegegerrchegegerne
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2421 CCTGACAGGAAATGCACTGGAGGATTTGGGCCTGAGGTTACTATGCCAGGGACTGAGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCCAGTCTGCAGACTACGGACTTTGTGGCTGAAGATCTGCCGCCTCACTGCTGCTGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGACGAGCTGGCCTCAACTCTGAGTGTGAACCAGAGCTGAGAGCTGGACCTGAGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAAGCTCCAGACCCTGCGGTTGGGCATCTGCCGGCTGGGCTTCTCCCCGCCTGTGAGGGTCT
                                                                                                                                                                                                                                                                                     GAGGACCGTTCTGCTGGACGCCTACAGTGAACATCTGGCAGCGGCCCTGTGCACCGATCC
                                                                                                                                                                                                                                                                                                                                                            902 GAGGACCGTTCTGCTGGACGCCTACAGTGAACATCTGGCAGCGGCCCTGTGCACCAATCC
                                                                                                                                                                                                                                                                                                                                                                                                    2061 AAACCIGATAGAGGIGICTCIGIACCGAAAIGCCCIGGGCAGCGGGGGGGGGAAGCIGCT
962 AAACCIGAIAGAGCIGICTCIGIACCGAAAIGCCCIGGGCAGCGGGGGGGGAAAGCIGCI
                                                                                                                                                                                                                                                                                                                                                                                                                                                              2121 CIGICAAGAACICAGAAACCCCAACIGCAAACTICAGAACCIGAGGCTGAAGAGGTGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1022 CIGICAAGAGCICAAGACCCCAACTGCAAACTICAGAACCTGAGGCTGAAGGCIGAAGAGGGCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CATCTCCAGCTCAGCCTGCAGGACCTCTCTGCAGCTCTCATAGCAGTATTTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1082 CATCTCCAGCTCAGCCTGCAGGACCTCTCTGCAGCTCTCATAGCCAATAAGAATTTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAGGATGGATGTGGGGAAGGGGGTTGGATTCCCAGGCATGATGCTGCTTTGCGAGGG
                                                                                                                                                                                                                                              CCTGGAGAAGAGTCTCGCTGGAAGGTCTCGCCGCACATCAAGATGGACCTGTTGCAGTG
                      GATCCAAAGCAAAGCTCAGAGCGACGCTCCACCTGCAGCCAGGCTCCTTGGAGTTCTT
                                                                           1761 CAGCIGCITGIACAAGAICCAGGAGGAGAGITIATCCAGCAGGCCCTGAGCCACTICCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ccreceecarcccaarecaecrecaearearrca---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1238
                                                                                              602 (
                                                                                                                                                                               1821
                                                                                                                                                                                                            722
                                                                                                                                                                                                                                        1881
                                                                                                                                                                                                                                                                                                1941
                                                                                                                                                                                                                                                                                                                                                       2001
                                                                                                                                                      662
            1641
                                                                   1701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   유
장
유
                                                                                                                                                                                                                                                                                                                                                                                                                                    Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         요 요
                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                 셤
                                                                                          g
                                                                                                                         ò
                                                                                                                                                g
                                                                                                                                                                                  ò
                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                임
                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                      Š
                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTTCCTGGCACTCACCACCGCTTCCTGTTTGGACTCCTGAACGAGGAGACCAGGAGCCA 1640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGCAGGCCCAGACCAGGACCAGGCTGTTGACCGAGTACGCGTTTTCTGAAAGGAG 1580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCTATTTGAGGAGCAGGACCTCCGGAAGCACGGCCTAGACGGGGAAGACGTCTCTGCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GTACATGCTCTACCTGCTGAGTCTGATGCAACCCAAGCCGGGGGCCCCGGGGCCTCCAAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCTCAACATGAACATCTTCCAGAAGGACATCAACTGTGAGAGGTACTACAGCTTCATCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCAGCAGCAGCTGGAGGGTGGGGGGCTGTTGAGACAGACGTCCAGGACCACCACCACTGCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1101 CGAGCCTCTCTTCACCATGTGCTTCGTCCCCTGGTGTGCTGGTGTGTATACTGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2; Indels 171; Gaps
                                                                                                                                                                                                                                                                                                                               PALM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 1683;
FILE REFERENCE: 21402-377 B
CURRENT APPLICATION NUMBER: US/10/162,335
CURRENT PILING DATE: 2002-10-01
FRIOR PILING DATE: 2001-06-04
FRIOR FILING DATE: 2001-06-04
FRIOR FILING DATE: 2001-06-04
FRIOR PILING DATE: 2001-06-04
FRIOR PELING DATE: 2001-06-06
FRIOR APPLICATION NUMBER: 60/295,61
FRIOR APPLICATION NUMBER: 60/296,418
FRIOR APPLICATION NUMBER: 60/296,418
FRIOR APPLICATION NUMBER: 60/297,414
FRIOR FILING DATE: 2001-06-16
FRIOR FILING DATE: 2001-06-17
FRIOR APPLICATION NUMBER: 60/297,567
FRIOR APPLICATION NUMBER: 60/299,567
FRIOR APPLICATION NUMBER: 60/299,285
FRIOR APPLICATION NUMBER: 60/299,949
FRIOR FILING DATE: 2001-06-14
FRIOR FILING DATE: 2001-06-16-15
FRIOR FILING DATE: 2001-06-16-15
FRIOR FILING DATE: 2001-06-16-15
FRIOR FILING DATE: 2001-06-16-15
FRIOR FILING DATE: 2001-06-26-21
FRIOR FILING DATE: 2001-06-26-21
FRIOR FILING DATE: 2001-06-26-21
FRIOR FILING DATE: 2001-06-26-21
FRIOR FILING DATE: 2001-06-26-21
FRIOR FILING DATE: 2001-06-21
FRIOR FILING DATE: 2001-06-21
FRIOR FILING DATE: 2001-06-21
FRIOR FILING DATE: 2001-06-21
FRIOR FILING DATE: 2001-06-21
FRIOR FILING DATE: 2001-06-21
FRIOR FILING DATE: 2001-06-21
FRIOR FILING DATE: 2001-06-21
FRIOR FILING DATE: 2001-06-21
FRIOR FILING DATE: 2001-06-31
FRIOR FILING DATE: 2001-06-31
FRIOR FILING DATE: 2001-06-31
FRIOR FILING DATE: 2001-06-31
FRIOR FILING DATE: 2001-06-31
FRIOR FILING DATE: 2001-06-31
FRIOR FILING DATE: 2001-06-31
FRIOR FILING DATE: 2001-06-31
                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 1394.8; pred. No. 0; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 90.1%;
Matches 1577; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                 ; NAME/KEY: CDS
; LOCATION: (18)..(1581)
US-10-162-335-23
                                                                                                                                                                                                                                                                                                                                                                                             TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            362
```

2300

1141

2000

901

841

1880

721

781

2060

2120

961

1021

2180

2720

1450

1330 2660

6 6 6 6 6 6 6 6 6

ò g ò

à g g

. Ag	y d	۶ ۶	8 8	අ දි ·	Q Q	& 8	ò	a 8	3 원	ð	g &	G &	ර් සි	ò	අු	8	a &	g qg	& 8	λö	qq	δ	a 8	를 A 	ò
461 GGGGACACGCGACGACCACAGCCAGCCCATCAAGATAGAGACCCTCTTTG 520		623 ACCCCGATGATCAGCATTCTGAGCCACACCGTGGTGTTCCAGGGGGCGGCAGGA 682 581 TAGGCAAGTCCATGCTGGCACAAGGTGATGCTGGACTGGGCGGACGGGAAGCTCTTCC 640	683 TIGGGADAACAATCTGGCCAGGAAGATGATGTGGACTGGGGACCGGGGACACTTACC 742	641 AAGGCAGATTTGATTATCTCTTCTACATCAACTGCAGGAGATGAACCAGAGGTGCCACGG 700 	701 AATGCAGCATGCAAGACCTCATCTTCAGCTGGCCTGAGCCCAGGGGCCTCTCCAGG 760	AGCTCATCCGAGTTCCCGAGCGCCTCCTTTCATCATCGACGCTTCGATGAGCTCAAGC 82		821 CTTCTTTCCACGATCCTCAGGACCCTGGTGCCTCTGCTGGAGGAGAAACGGCCCACGG 880		ACATICICCTGAGCAGCCTCATCAGAAAGAACTGCTTCCCGAGGCCTCTCTCT	941 CCACAGGGCCACGCCCTGGAGAAACTGCAGAGACTGCTGGAGACCATCCTGGGCATGGTGGG 1099	1001 AGATCCTGGGCTTCTCTGAGGAAAGGAAAGGAATACTTCTACAAGTATTTCCACAATG 1060 		1160 AGGCCCAAGCCAGGCAGCCTTCAGTCTAGAAACGAGATCCTCTTCACCATGT 1219	1121 GCTTCGTCCCCTGGTGTGTGGTGGTGTGTCTGCCTCCAGCAGCAGCAGCTGGTG 1180			1241 GTCTGATGCAAAGCCGGGGGCCCCGCGCCTCCAGCCCCACCCA				TCAGGAATCATGGACTGCAGAGGGGGGGGGTGTCTTTCCTGAGGATGAAACTGTTCC - 5-2-	1421 AGAGGGATCAACTGGAGGGTACTACACTTATCCATTGATTTCATTCA	152	1580 TIGCCGCCATGTACTACCTGCTGGAAGAAAAGGAAGGAAGGA
ð í	g &	g &	Вр	Oy Dp	કે દ	8 8	d d	\$ g	ò	අු	දු ද	8 8	3 8	đ	ò	<u>අ</u> දි	5 A	ठे व	3 &	Ор	ò	a	දු ද	ò	gg

2499 AAACTGGGGTTGGTGAATTCTGGCCTTÁCGTCAGTCTGTTGTTCAGCTTTGTCCTCGGTA 2715 2560 CTCAGTGTGAACCAGAGCCTGAGAGGTGGACCTGAAGCCTGAATGAGCTGGGGGACCTC 2619 2199 2259 2415 2319 2379 2535 2139 2079 2176 AGTITITGCCGGGGCTCTTTCAGTTCTGAGCACCAGCCAGAGTCTAACTGAATTGGAC 2235 2236 CICAGIGACATICICCIGGGGACCCAGGGAIGAGAGIGITGIGAAACGCICCAGCAI 2295 1996 2116 2019 2175 1759 rcrgrcrgaagcacrgcaagagcaccaagaracrgcacrrgraaragcaccaaccracaaga 1933 1633 1693 1753 AGTICTICAGCIGCTIGIACGAGATCCAGGAGGAGTTTATCCAGCAGGCCCTGAGCC 1813 ACTICCAGGIGAICGIGGICAGCAACATIGCCICCAAGAIGGAGCACAIGGICTCCICGI 1873 1997 irridcairaddaachdreancdddreadreadherethddearrrercearaddrec 2056 -----GGCAGGCCCAGACCAGGACGTGACCAGGCTGTTGACCGAGTACGCGTTTTCTG 1573 2260 AACGGCGTTGGATTCCCCAGGCATGATGCTGCTTTGCGAGGGCCTGCGGCATCCCCAGTGC <u>AGGCTGCAGATGATTCAGTTGAGGAAGTGTCAGCTGGAGGTCCGGGGCTTGTCAGGAGATG</u> 2440 GAGGATITIGGGCCTGAGGTTACTATGCCAGGGACTGAGGCACCCAGTCTGCAGACTACGG 2596 dgadacrcaddagrcgcaarrrrardrgaaaaagccaadaarrccacagrdraaccrgcad 2500 ACTITICIGCTICAAGAICTGCCGCCTCACTGCTGCTGCTGTGACGAGCTGGCCTCAACT 2200 GAGGACCTCTGTGCAGCTCTCATAGCCAATAAGAATTTGACAAGGATGTCTCAGTGGC 2356 TICGACAİCİCTIGGICCİCAGCAGCAACCAGAAGCIGGIGGAGCIGGACCIGAGIGA gerrergrececcecacarcregerrergrecercrescregacere CGGACGGGAAGA---------CCGCGCGAGGTGC 2057 CCAÁGGAGGAGGAGGAGGAAAAGGAAGGCCGACACCTTGATATGGTGCAGTGTGTCC rececageacecacacecretregrecaecreagaceaagacecrrecaeae 2117 icccaderecrerelarderecrerere-reargaridaedaecacereaeree 2020 GCCTACAGTGAACATCTGGCAGCGGCCCTGTGCAACCAAACCTGATAGAGCTGTCT 2080 creraccaaaargcccregccagccagcgggggggaggregcrecregreaagacreca 2140 cccaacrocaaacrocagaaccroaagecroaagerocogcarcrocagecroage 1640 GTCGTTTGAAGCTTCCCAGCCGAGACGTGACAGTCCTTCTGGAAAACTATGGCAAATTCG TGCAGTGGATCCAAAGCTCAGAGCGACGGCTCCACCCTGCAGCAGGGCTCCTTGG AAAGGAGCTTCCTGGCACTCACCGGCTTCCTGTTTGGACTCCTGAACGAGGACCA 1634 GGAGCCACTGGAGAGAGTCTCTGCTGGAAGGTCTGGCGCGCACATCAAGATGGACCTGT 2656 2476 2536 2296 2416 2320 2380 1760 1820 1754 1880 1814 1940 1874 1934 1960 1694 1574 1521

Search completed: February 9, 2005, 02:17:11 Job time : 1580 secs

Lipis Page Blank (uspto)

. 5447 F Homo P

full-leng
full-leng
full-leng
full-leng
full-leng
full-leng
full-leng
full-leng
full-leng
full-leng
full-leng
full-leng

AQ716650 AY407367 AY407367 CR604056 CR604095 CR606240 CR606240 CR606240 CR606240 CR606240 CR60636 CR60035 CR60035 CR60035 CR60035 CR60035 CR60035 CR60035 CR60035 CR60035 CR60035 CR60035

```
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

E. (bases 1 to 942)

NIH-MGC http://mgc.nci.nih.gov/.

I. Unpublished (1999)

Contact: Robert Strausberg, Ph.D.

Email: cgapbs-r@mail.nih.gov
Tissue Procurement: DCTD/DTP

CDNA Library Preparation: Rubin Laboratory

CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Agencourt Biosciaence Corporation

Clone distribution: MGC.Clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:

http://image.llnl.gov

Plate: LLCM2576 row: n column: 05

High quality sequence stop: 453.
                                                                                                                                                                                                                                                                                                                                                   942 bp mRNA linear EST 21-AUG-2002 St, mRNA equence.
BQ957631.1 G1:22373109
BST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           24.5%; Score 762.4;
                                                                                                                                                                                                                                                                                                          ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1. .942
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
            AQ716650
AY407367
CR613396
                                                              CR592774
CR694328
CR60495
CR606240
CR597292
CR629171
CR609192
CR61492
CR60015
CR60015
CR60015
CR60011
CR60035
CR60011
                                                                                                                                                                                                                                                     CR597816
CR608218
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens (human)
Homo sapiens
2350
14590
1115371
116640
116651
116661
116661
116660
116680
116880
116880
 272.6
272.6
272.6
272.6
272.6
272.6
272.6
272.6
272.6
272.6
272.6
272.6
272.6
272.6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                   ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                            LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                 RESULT 1
BQ957631
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURES
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGENCOURT
AGENCOURT
ba56e01.y
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pan trogî
EST368698
9461 Full
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HS 5408 A
HS 5249 B
603063634
HS 5130 A
HOMO BADI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapi
Homo sapi
Homo sapi
Homo sapi
603619428
AGENCOURT
Pan trogl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapi
603062092
OST400990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OST448539
AGENCOURT
                                                                                     8, 2005, 15:58:31; Search time 8928 Seconds (without alignments) 13250.868 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BQ957631 AGENCOURT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                          US-10-781-294-23
3108
1 atgctacgaaccgcaggcag.....atttggacattggctgctga 3108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CG663401 CB947742 P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BM043219
BQ710940
AG161279
AK087774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AF054176 B
BI519910 (
CG648167 (
                                                                                                                                                                                                                                                                   68479088
           5.1.6
Compugen Ltd.
                                                                                                                                                                                                                                       34239544 seqs, 19032134700 residues
                                                                                                                                                                                                                                                                Total number of hits satisfying chosen parameters:
           version 5
                                                                                                                                                                                                                                                                                                                               Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                              sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BQ920369

BW67361

AG067278

AG067278

CV030364

AQ726243

AQ814983

BJ911853

AQ443134

HSM800983

BC021272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BQ710940
AG161279
AK087774
AF054176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BI519910
CG648167
CG663401
CB947742
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BC012789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BM043219
                                                                                                                                                                                               IDENTITY NUC
Gapop 10.0 , Gapext 1.0
           GenCore (c) 1993
                                                             - nucleic search, using
                                                                                                                                                                                                                                                                                           seq length: 0
seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB
                                                                                                                                                                                                                                                                                                                                                                                                  gb_est1:
gb_est2:
gb_htc:
gb_est3:
gb_est4:
gb_est6:
gb_gs81:
gb_gs81:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query
Match Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              568
669
496
499
764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4449
4123
3359
3360
788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              983
581
3475
2218
643
490
496
                       Copyright
                                                                                       February
                                                                                                                                                                                                                                                                                                                                                                                        EST:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Perfect score:
                                                                                                                                                                                                Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           698
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
660.2
66
                                                                                                                                                                                                                                                                                           Minimum DB
Maximum DB
                                                             OM nucleic
                                                                                                                                                                       Sequence:
                                                                                                                                                                                                                                       Searched:
                                                                                                                                                                                                                                                                                                                                                                                        Database
                                                                                       Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Result
```

DB 5; Length 942;

GI:22335067

BQ920369.1 BQ920369

```
ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2397
                                                                                                                                                                                                                                                                                                                                                                                                    2223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2341
                                                                                                                                                                                                                                                                                                                                  2103
                                                                                                                                                                                                                                                                                                                                                                 cogogogopasacricrorrandesacricadacrececesacricasasacric 2163
                                                                                                                                                                                                                                                                                                                                                                                                                                      2281
                                                                                                                                                                                                                                                                                                  2043
                                                                                          1624 GAGGAGACCAGGAGCCACCTGGAGAAGAGTCTGTGGAAGGTCTCGCCGCACATCAAG 1683
                                                                                                                            ATGGACCTGTTGCAGGATCCAAAGCAAAGCTCAGACGACGGCTCCACCTGCAGCAG 1743
                                                                                                                                                              1803
                                                                                                                                                                                              1863
                                                                                                                                                                                                                                1923
                                                                                                                                                                                                                                                                1983
                                                                                                                                                                                                                                                                                                                                                                                                                     716
                                                                                                                                                                                                                                                                                                                                                                                                                                                     776
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       836
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        968
                          1563
                                                           1623
                                                                                                                                                                                                                                                                                                                                                                                   657
                                                                                                                                                                                                                360
                                                                                                                                                                                                                                                                                                                 540
                                                                                                                                                                                                                                                                                                                                                   900
                                                                                                                                                                                                                                                420
                                                                                                                                                                                                                                                                                 480
         ę,
                                                          180
                                                                                                                                            240
                                                                                                                                                                              300
                                          9
                                                                                                                                                                                                                                                                                                                                                                                                   AGGCTGAAGAGGTGCCGCATCTCCAGCTCAGCCTGCGAGGACCTGTGCAGCTCTCATA
                                                                                                                                                                                                                                                                                                                                                                                                                                     GCCAATAAGAATTTGACAAGGATGGATCTCAGT-GGCAACGGCGTTGGATT-CCCAGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                               TGATGCTGCTTTGCGAGGCCTGCGGGATCCCCAGTGCAGGCTGCAGATGATTAGTTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGAAGTGTC - - AGCTGGAGGTCCGGGGCTTGTCA - GGAGATGGCTT - CTGTGCTCGGCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                601 CGGGGGGTGAAGCTGCTGTC-AGGACTCAGACACCCC-ACTGCNAACTTC-GAACCTG
                                                                                                                                                                                                                                                                                                                                                                                                             1924 ACCTACAGCGGGGAACGGGGAAGACCGCGCGAGGTGCTCCGCAGGGGGCGCACACGCTGTTG
                                                                                                                                                                                                                                                                                                                                  2044 GCCCTGTGCACCAATCCAAACCTGATAGAGCTGTCTCTGTACCGAAATGCCCTGGGCAGC
                                                                                                           GGCTCCTTGGAGTTCTTCAGCTGCTTGTACGAGATCCAGGAGGAGGAGTTTATCCAGCAG
                                                                                                                                                                       241 GGCTCCTTGGAGTTCTTCAGCTGCTTGTACGAGATCCAGGAGGAGGAGGAGTTTATCCAGCAG
                                                                                                                                                                                                GCCCTGAGCCACTTCCAGGTGATCGTGGTCAGCATTGCCTCCAAGATGGAGCACATG
                                                                                                                                                                                                         GTCTCGTCGTTCTGTCTGAAGCGCTGCAGGAGCGCCCAGGTGCTGCACTTGTATGGCGCCC
                                                                                                                                                                                                                                         GTGCAGCTCAGACCAGAGGACCGTTCTGCTGGACGCCTACAGTGAACATCTGGCAGCG
                                                                                                                                                                                                                                                                                                           1504 GACGAGGGGAGGCGGGGCCCCAGACCAGGACGTGACCAGGCTGTTGACCGAGTAC
                                    Gaps
         10;
          Indels
 Pred. No. 2.8e-175;
0; Mismatches 26;
   al Similarity 96.0%;
872; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AACCCACA 2405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AANCCACA 904
   Best Local Similarity
Matches 872; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             897
                                                                                                                                                                                                                                                                                                                                                                       2104
                                                                                                                                                                                                                                                                                                                                                                                                        2164
                                                                                                                                                                                                                                                                                                                                                                                                                                         2224
                                                                                                                                                                                                                                                                                                                                                                                                                                                         717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2398
                                                                                                                                                                                                                                                                                                                      481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            837
                                                                                                                                                                                                                                    1864
                                                                                                                                                                                                                                                    361
                                                                                                                                                                                                  1804
                                                                                                                                                                                                                                                                                                     1984
                                                                                                                                                                                                                                                                                                                                                       541
                                                               1564
                                                                                                                                 1684
                                                                                                                                                                  1744
                                                                                                                                                                                                                   301
                                              Н
                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                        à g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                  강 옵
                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                               g
                                                                                                                                                                                                  ò
                                                                                                                                                                                                                 g
                                                                                                                                                                                                                               ò
                                                                                                                                               g
                                                                                                            요
                                                                                                                                ò
                                                                                                                                                               ò
                               ð
                                             a
                                                              ò
                                                                             셤
                                                                                               8
```

BQ920369
AGENCOURT 8918853 NIH_MGC_40 Homo sapiens cDNA clone IMAGE:63837915', mRNA sequence.

RESULT 2 BQ920369 LOCUS DEFINITION

/tissue type="carcinoma, cell line"
/tissue type="carcinoma, cell line"
/lab_host="DH10B (phage-resistant)"
/lab_host="DH10B (phage-resistant)"
/clone lib="NHH MGC 40"
/site 2: EcoRI; cDNA made by oligo-dT priming.
Directionally cloned into EcoRI/Xhol sites using the
Directionally cloned into EcoRI/Xhol sites using the
following 5' adaptor: GGGAGAG(G). Library constructed by
Ling Hong in the laboratory of Gerald M. Rubin (University
of California, Berkeley) using ZAP-cDNA synthesis kit
(Stratagene) and Superscript II RT (Life Technologies).
Note: this is a NIH_MGC Library." Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. In Chases; 1 to 917)

In (Dases; 1 to 917)

In Illaryot http://mgc.nci.nih.gov/.

In National Institutes of Health, Mammalian Gene Collection (MGC)

Unpublished (1999)

Unpublished (1999)

Unpublished (1999)

In Sagabbs-r@mail.nih.gov
Tissue Procurement: DoTD/DTP

CONA Library Preparation: Rubin Laboratory

CONA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Agencourt Bioscience Corporation

Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:

Http://image.llnl.gov

Plate: LLCM2577 row: m column: 08

High quality sequence stop: 558.

Location/Qualifiers 1923 1743 GCCCTGAGCCACTTCCAGGTGATCGTGGTCAGCAACATTGCCTCCAAGATGGAGCACATG 1863 1623 1683 300 120 1504 GACGAGGGGAGGGCGGGCAGGCCCAGGACGAGGACGAGGCTGTTGACCGAGTAC GCGTTTTCTGAAAGGAGCTTCCTGGCACTCACCAGCCGCTTCCTGTTTGGACTCCTGAAC ATGGACCTGTTGCAGTGGATCCAAAGCAAAGCTCAGAGCGACGGCTCCACCCTGCAGCAG 1744 GGCTCCTTGGAGTTCTTCAGCTGCTTGTACGAGAGAGAGGAGGAGTTTATCCAGCAG GTCTCCTCGTTCTGTCTGAAGCGCTGCAGGCGCCCAGGTGCTGCACTTGTATGGCGCC Gaps .. Length 917; 10; Indels 22.5%; Score 698; DB 5; L llarity 98.5%; Pred. No. 1.6e-159; Conservative 0; Mismatches 10; /organism="Homo sapiens" /mol_type="mRNA" /db_xref="taxon:9606" /clone="IMAGE:6383791" Homo sapiens (human) Query Match Best Local Similarity Matches 715; Conserv 1864 1564 121 1684 1804 61 1624 н 241 VERSION KEYWORDS SOURCE ORGANISM REFERENCE AUTHORS TITLE JOURNAL FEATURES ORIGIN g ò g ò g ò ò 셤 셤 ò 셤 ò ò

ï

g

윱

ò

셤

ઠે

셤

ઠે

g

셤 ò

ઠે

```
AW673661
ba56e01.y3 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:2900568 5'
similar to TR:075434 075434 ANGIOTENSIN/VASOPRESSIN RECEPTOR
AII/AVP.;, mRNA sequence.
                                                                                                                                      1623
                                                            1563
                                                                                                                                                                                                                                                                                              1743
                                                                                                                                                                                                                                                                                                                                                                                                                                                       1863
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1923
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2043
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2162
                                                                                                                                                                                                                 1683
                                                                                                                                                                                                                                                                                                                                                                         1803
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1983
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2103
                                                                                                                                                                            120
                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                                                              300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 571)
NIH-WGC http://mgc.nci.nih.gov/.
                                                                                                                                      1564 GCGTTTTCTGAAAGGAGCTTCCTGGCACTCACCAGCGGCTTCCTGTTTGGACTCCTGAAC
                                                                                                                                                                                                               GAGGAGACCAGGAGCCACCTGGAGAAGAGTCTCTGCTGGAAGGTCTCGCCGCACATCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGGGGGGGGGAACTGCTCTGTCAAGGACTCAGACACCCCAACTGCAACTTCAG-AACCT
                                                          1504 GACGAGGGGGGGGGGGGGGGCCCCAGACCAGGACGTGACCAGGCTGTTGACCGAGTAC
                                                                                   GACGAGGGGGGGGGCGGGCCCAGACCAGGACGTGACCAGGCTGTTGTTGACCGAGTAC
                                                                                                                                                              GCGTTTTCTGAAAGGAGCTTCCTGGCACTCACCACCACCGCCTTCCTGTTTGGACTCCTGAAC
                                                                                                                                                                                                                                                                                              1684 ATGGACCTGTTGCAGTGGATCCAAAGCAAAGCTCAGAGCGACGGCTCCACCCTGCAGCAG
                                                                                                                                                                                                                                                                                                                                   181 ATGGACCTGTTGCAGTGGATCCAAAGCAAAGCTCAGAGGGGGCGACGGCTCCACCCTGCAGGAG
                                                                                                                                                                                                                                                                                                                                                                           GGCTCCTTGGAGTTCTTCAGCTGCTTGTACGAGATCCAGGAGGAGGAGTTTATCCAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                              241 GGCTCCTTGGAGTTCTTCAGCTGCTTGTACGAGATCCAGGAGGAGGAGTTTATCCAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCCCTGAGGCACTTCCAGGTGATCGTGGTCAGCAATTGCCTCCAAGATGGAGCACATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301 eccercadecacriceacarcarcarcarcaacarracerecaacarcaacarcarca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTCTCCTCGTTCTGTCTGAAGCGCTGCAGGAGCGCCCCAGGTGCTGCACTTGTATGGCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        361 GTCCCCCGTCGTTCTGTCTCGAAGGGCTGCAGGAGGCGCCCAGGTGCTGCACTTGTATGGCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCTACAGCGCGGACGGGAAGACCGCGCGAGGTGCTCCGCAGGAGCGCACACGCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      421 ACCTACAGCGCGGACGGGGAAGACCGCGCGCGAGGTGCTCCGCAGGAGCGCACACACGCTGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTGCAGCTCAGACCAGAGAGGACCGTTCTGCTGGACGCCTACAGTGAACATCTGGCAGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             481 GIGCAGCICAGACCAGAGAGACCGIICIGCIGGACGCCIACAGIGAACAICIGGCAGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCCCTGTGCACCAATCCAAACCTGATAGAGCTGTCTCTGTACCGAAATGCCCTGGGCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCCCTGTGCCCCCATCCAAACCTGATAGAGCTGTCTCTGTACCGAAATGCCCTGGGCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGGGGGTGAAGCTGCTGTCAAGGACTCCGACACCCCCAACTGCAAACTTCAGAAACCT
                      Gaps
                      ;
                      Indels
99.4%; Pred. No. 3e-150;
tive 0; Mismatches 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Unpublished (1999)
Other ESTs: ba56e01.x1
Contact: Robert Strausberg, Ph.D.
Esmall: cgapbs-r@mail.nih.gov
Tissue Procurement: ATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAGGCTGAAGAGGTGCC 2179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAGGCTGAAGAGGTGCC 677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AW673661.1 GI:7538896
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens (human)
  Best Local Similarity 99.4
Matches 673; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                 1624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2044
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2163
                                                                                               ~
                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                           1744
                                                                                                                                                                                                                                                                                                                                                                                                                                                       1804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1924
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1984
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    661
                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AW673661/c
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JOURNAL
COMMENT
                                                                                           셤
                                                                                                                                                                    셤
                                                                                                                                                                                                                                             요
                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         요
                                                          ઠે
                                                                                                                                      ઠે
                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /clone="IMAGE:6381082"
/tissue_type="carcinoma, cell line"
/tissue_type="carcinoma, cell line"
/lab_host="DH108 (phage-resistant)"
/clone_lib="WHH MGC 40"
/note="Organ: prostate; Vector: pOTB7; Site_1: XhoI;
Site_2: EccRI; cDNA made by oligo-dT priming.
Directionally cloned into EccRI/XhoI sites using the following 5' adaptor: GGGAGGG(G). Library constructed by ling Hong in the laboratory of Gerald M. Rubin (University of California, Berkelsey) using ZAP-CDNA synthesis kit (Stratagene) and Superscript II RT (Life Technologies).
Note: this is a NIH_MGC Library."
                                                                                                                                                      2103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       937 bp mRNA linear EST 16-AUG-2002
AGENCOURT 8678096 NIH_MGC_40 Homo sapiens cDNA clone IMAGE:6381082
BQ900330
                                                                             2043
                                                                                                                                                                                                                                     2162
                                                                                                                                                                                                                                                                                                                2222
                                                                                                                   540
                                                                                                                                                                                               900
                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                 Eukaryota.

Eukaryota.

Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.

Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

I (bases 1 to 37)

NIH-MGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC)

Unpublished (1999)

Contact: Robert Strausberg, Ph.D.
                        GTGCAGCTCAGACCAGAGGACCGTTCTGCTGGACGCCTACAGTGAACATCTGGCAGCG
                                                                                                   481 GTGCAGCTCAGACCAGAGAGCGTCTGCTGCAGACGCCTACAGTGAACATCTGGCAGCG
                                                                                                                                                      GCCCTGTGCACCAATCCAAACCTGATAGAGCTGTCTCTGTACCGAAATGCCCTGGGCAGC
                                                                                                                                                                                                                                                                                                              GAGGCTGAAGAGGTGCCGCATCTCCAGCTCAGCCTGCGAGGACCTCTGCAGCTCTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CDNA Library Preparation: Rubin Laboratory
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
I column: 11
High quality sequence start: 5
High quality sequence stops: 502.
Location/Qualifiers
  ACCTACAGCGCGGACGGGAAGACCGCGCGAGGTGCTCCGCAGGAGCGCACACGCTGTTG
                                                                                                                                                                                             541 GCCCTGTGCACCAATCCAAACCTGATAGAGCTGTCTCTGTACCGAAATGCCCTGGGCAGC
                                                                                                                                                                                                                                 CGGGGGGTGAAGCTGCT-CTGTCAAGGACTCAGACCCCCAACTGCAAACTTCAGAACCT
                                                                                                                                                                                                                                                                      601 cGGGGGGTGAAGCTGCTGTCAAGGACTCAGACCCCCAACTGCGAACTTCAGAACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1. .937
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Email: cgapbs-r@mail.nih.gov
Tissue Procurement: DCTD/DTP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BQ900330.1 GI:22292344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                            2223 AGCCAA 2228
                                                                                                                                                                                                                                                                                                                                                                                                                                AGGCCA 726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                    421
                                                                           1984
                                                                                                                                                                                                                                 2104
                                                                                                                                                                                                                                                                                                              2163
                                                                                                                                                                                                                                                                                                                                                                                                                                  721
                                                                                                                                                        2044
  1924
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 3
BQ900330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORIGIN
```

21.2%; Score 660.2; DB 5; Length 937;

Query Match

```
Loubsek 1. Us one).

Totoki,Y., Hattori,M., Toyoda,A., Taylor,T.D., Yada,T.,

Totoki,Y., Matanabe,H. and Sakaki,Y.

Direct Submission

Direct Submission

and Chemical Research (RIKEN), Genomic Sciences Center (GSC);

1.7-22 Suehirro-chou, Tsurumi-ku, Yokohama, Ranagawa 230-0045, Japan

1.7-22 Suehirro-chou, Tsurumi-ku, Yokohama, Ranagawa 230-0045, Japan

1.7-21 Submission

1.7-25 Suehirro-chou, Tsurumi-ku, Yokohama, Ranagawa 230-0045, Japan

1.7-21 Submission

1.7-22 Suehirro-chou, Tsurumi-ku, Yokohama, Ranagawa 230-0045, Japan

1.7-21 Submission

1.7-22 Suehirro-chou, Tsurumi-ku, Yokohama, Ranagawa 230-0045, Japan

1.7-22 Suehirro-chou, Tsurumi-ku, Yokohama, Ranagawa 230-0045, Japan

1.7-22 Suehirro-chou, Tsurumi-ku, Yokohama, Ranagawa 230-0045, Japan

1.7-22 Suehirro-chou, Tsurumi-ku, Yokohama, Ranagawa 230-0045, Japan

1.7-22 Suehirro-chou, Tsurumi-ku, Yokohama, Ranagawa 230-0045, Japan

1.7-22 Suehirro-chou, Tsurumi-ku, Yokohama, Ranagawa 230-0045, Japan

1.7-22 Suehirro-chou, Tsurumi-ku, Yokohama, Suenga 230-0045, Japan

1.7-22 Suehirro-chou, Tsurumi-ku, Yokohama, Suenga 230-0045, Japan

1.7-22 Suehirro-chou, Tsurumi-ku, Yokohama, Suenga 230-0045, Japan

1.7-22 Suehirro-chou, Tsurumi-ku, Yokohama, Suenga 230-0045, Japan

1.7-22 Suehirro-chou, Tsurumi-ku, Yokohama, Suenga 230-0045, Japan

1.7-22 Suehirro-chou, Tsurumi-ku, Yokohama, Suenga 230-0045, Japan

1.7-22 Suehirro-chou, Tsurumi-ku, Yokohama, Suenga 230-0045, Japan

1.7-22 Suehirro-chou, Tsurumi-ku, Yokohama, Suenga 230-0045, Japan

1.7-22 Suehirro-chou, Tsurumi-ku, Yokohama, Suenga 230-0045, Japan

1.7-22 Suehirro-chou, Tsurumi-ku, Yokohama, Suehirro-chou, Yokohama, Suehirro-chou, Tsurumi-ku, Yokohama, Suehirro-chou, Yokohama, Suehirro-chou, Yokohama, Suehirro-chou, Yokohama, Suehirro-chou, Yokohama, Suehirro-chou, Yokohama, Suehirro-chou, Yokohama, Suehirro-chou, Yokohama, Suehirro-chou, Yokohama, Suehirro-chou, Yokohama, Suehirro-chou, Yokohama, Suehirro-chou, Yokohama, Suehirro-chou, Yokohama, Suehirro-chou, Yokohama, Suehirro-chou, Yokohama, Sueh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTTCACCATGTGCTTCGTCCCCCTGGTGCTGGTGTGTACCTGCCTCCAGCAGCA 1169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CITCACCATGIGCTTCGTCCCCCTGGTGTGTGTGTGTGTACTGCCTCCAGCAGCA 468
  seguence
                                                                                                                                          Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   49 GCATGCTCGAGAGCTCATCCGAGTTTCCGAGCGCCTCCTTTTCATCATCGACGCTTTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               870 ACGGCCCACGGAGCTGCTTCTTAACAGCTTAATTCGGAAGAAGCTGCTCCCTGAGCTATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           169 ACGGCCACGGAGCTGCTTCTTAACAGCTTAATTCGGAAGAAGCTGTTTTTTGAGCTATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTTGCTCATCACCACGGCCCACGGCTTTGGAGAAGCTCCACCGTCTGCTGGAGCACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTTCCACAATGCAGACAGGCGGGCCAAGTCTTCAATTACGTGAGGGACAACGAGCCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGAGCTCAAGCCTTCTTTCCACGATCCTCAGGGACCCTGGTGCCTCTGCTGGGAGGAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     109 reaccreasecerretrecaceargereaegacereserecreserecreseredanda
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TTTCCACAATGCAGAGCAGGCGAAGTCTTCAATTACGTGAGGACAACGAGCCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           750 GCCTCTCCAGGAGCTCATCCGAGTTCCCGAGCGCCTCCTTTTCATCATCGACGGCTTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                          Fujiyama,A., Hattori,M., Toyoda,A., Taylor,T.D., Yada,T.,
Totoki,Y., Watanabe,H. and Sakaki,Y.
BAC end sequences of Library PTB
troglodytes DNA, clone: PTB-057D11.R, genomic survey
                                                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eutel
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Pan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  664;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /sex="male"
/cell_type="lymphoblast"
/clone_lib="PTB Chimpanzee Male BAC Library"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               16.7%; Score 518.8; DB 9; 92.7%; Pred. No. 1.2e-115; iive 0; Mismatches 43;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /organism="Pan troglodytes"
/mol_type="genomic DNA"
/db_xref="taxon:9598"
/clone="PTB-057D11.R"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Location/Qualifiers
                                                                                           Pan troglodytes (chimpanzee)
Pan troglodytes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Vector : pKS145
R.Site 1 : SacI
R.Site 2 : SacI.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequencing: M13Rev
                                              AG067278.1 GI:16619080 GSS.
                                                                                                                                                                                                                                                                                                                 (bases 1 to 664)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1. .664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Similarity
                                                                                                                                                                                                                                                                                      Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIMERS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LIBRARY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches 555;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    930
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
    DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      source
                                                                                                                                                                                                                                                                                                                                                                                  TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                     AUTHORS
                                                                                                                                                                                                                    AUTHORS
                                                                                                                                                                                           REFERENCE
                                                                                                                                                                                                                                                                                                               REFERENCE
                                                                                                                                                                                                                                                                                      JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                                                                   TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ठ
                                                                                                                                                                                                                                                                                      /organism="Homo sapiens"
/mol_type="mRNA"
/db_zref="taxon:9606"
/db_zref="taxon:9606"
/db_ne="TMAGB:190068"
/lab_fost="DH108"
/lab_fost="DH108"
/lab_ne="bH108"
/lone_lib="NHH MGC_10"
/note="Crgan: cervix; Vector: pCMV-SPORT6; Site_1: NotI; Site_2: Sal1; Cloned unidirectionally. Primer: Oligo dT. Average insert size 1.5 kb. Library prepared by Life Technologies."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1655
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1595
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTGCTGGAAGGTCTCGCCGCACATCAAGATGGACCTGTTGCAGTGGATCCAAAGCAAAGC 1715
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TCAGAGCGACGGCTCCACCCTGCAGCAGGCTCCTTGGAGTTCTTCAGCTGCTTGTACGA 1775
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GATCCAGGAGGAGGAGTTTATCCAGCAGGCCCTGAGCCACTTCCAGGTGATCGTGGTCAG 1835
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GSS 03-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTTCCAGAAGGACATCAACTGTGAGAGGTACTACAGCTTCATCCACTTGAGTTTCCAGGA 1475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Center
be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              512
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        331 ggacgrgaccaggcrgrrgaccgagracgcgrfrrcrgaaaggagcrrccrggcacrcac 272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCAGAGCGACGGCTCCACCTGCAGCAGGGCTCCTTGGAGTTCTTCAGCTGCTTATGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           571 gegrierecricearecrescasaresecrereaareaarearacerecrarereseca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGACCTCCGGAAGCACGGCCTAGACGGGGAAGACGTCTCTGCCTTCCTCAACATGAACAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGACGTGACCAGGCTGTTGACCGAGTACGCGTTTTCTGAAAGGAGCTTCCTGGCACTCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAGCCGCTTCCTGTTTGGACTCCTGAACGAGGAGACCAGGAGCCACCTGGAGAAGAGTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    271 cagccgcrrccrgrrrggacrccrgaacgaggagccaggaggcaccrggagaagagrcr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1297 GGGTTGTGCTCCTTGGCGGCAGATGGGCTCTGGAATC-AGAAAATCCTATTTGAGGAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
       cDNA Library Preparation: Life Technologies, Inc. cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) DNA Sequencing by: Washington University Genome Sequencing Clone distribution: MGC Clone distribution information can found through the I.M.A.G.E. Consortium/LLNL at: image.llnl.gov/image/html/iresources.shtml
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   17.4%; Score 539.8; DB 2; Length 571;
llarity 97.7%; Pred. No. 8e-121;
Conservative 0; Mismatches 12; Indels 1
                                                                                                                                                                     Possible reversed clone: similarity on wrong strand Seq primer: -40RP from Gibco High quality sequence stop: 426. Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAACATTGCCTCCAAGATGGAGCACATGGTC 1866
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAACATTGCCTCCAAGATGGAGCACATGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Local Similarity
Matches 558; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AG067278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1776
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1836
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                            gource
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 5
AG067278
LOCUS
                                                                                                                                                                                                                                                 FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
```

108

ପ୍ଧ

ઠે

ઠે 요

셤

ઠે

```
/note="Vector: mixed; The ORFs were PCR amplified from the MGC (Mammalian Gene Collection) as of April 2004 and cloned by recombinational Gateway cloning into pDONR223 Donor vector. Reference: MGC (Mammalian Gene Collection) Program Team, Generation and Initial Analysis of more than 15,000 Full-Length Human and Mouse CDNA Sequences. PNAS, 2002, 99(26), 16899-16903"
                                                                                   2057
                                                                                                                                                                           2117
1997
                                                                                                                                                                                                                                                                                                                                                                                                                     CV030364 669 bp mRNA linear EST 20-AUG-2004 9461 Full Length cDNA from the Mammalian Gene Collection Homo sapiens cDNA 5' similar to BC028069, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Genome Res. (2004) In press
Contact: Vidal M
Marc Vidal Laboratory
Dana Farber Cancer Institute
1 Jimmy Fund Way Smith 858, BOSTON, MA 02115, USA
Tel: 617 632 5180
Fax: 617 632 5739
Email: Marc Vidal@dfci.harvard.edu
ORF Sequence Tag (OST) of Gateway Entry construct. Each cloned ORF
results from a PCR reaction using an MGC full-length cDNA as
                                                                                                                               417
                                                                                                                                                                                                                  477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mammalia; Butheria; Craniata; Vertebrata; Buteleostomi; Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.

1 (Dases I to 669)

Rual, J.F., Hirozane-Kishikawa, T., Hao, T., Bertin, N., Li, S.,
Dricot, A., Li, N., Rosenberg, J., Lamesch, P., Vidalah, P.O.,
Clingingsmith, T.R., Hartley, J.L., Esposito, D., Cheo, D., Moore, T.,
Simmons, B., Sequerra, R., Bosak, S., Doucette-Stamm, L., Le Peuch, C.,
Vandenhaute, J., Cusick, M.E., Albala, J.S., Hill, D.E. and Vidal, M.
Human ORFeome Version 1.1: a Platform for Reverse Proteomics
                                         357
                                                                                                                                                                                                                                                                   GCTCTGTCAAGGACTCAGACACCCCAACTGCAAACTTCAGAACCTGAGGCTGAAGAG 2174
                                                                                                                                                                                                                                                                                                          478 GCTCTTGTCAGGACTCANACACCCCAACTGCAAACTTCAGAA-CTGAGGCTGGAGAG 533
                                                                                                               358 AGAGAGCGTTCTGCTGGACGCCTACAGTGAACATCTGGCAGCGGCCCTGTGCAACAA
                                                                                                                                                                                                         418 TCCAAACCTGATAGAGCTGTCTCTGTACCGAAATGCCCTGNGCAAGCCGGGGGTGAAGCT
                                                                                     1998 AGAGAGGACCGTTCTGCTGGACGCCTACAGTGAACATCTGGCAGCGGCCCTGTGCACCAA
1938 CGGGGAAGACCGCGCGCGAGGTGCTCCGCAGGAGCGCACACGCTGTTGGTGCAGCTCAGACC
                         /tissue_type="mixed"
/clone_lib="Full Length cDNA from the Mammalian Gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FORWARD: ATGCTACGAACCGCAGGCAG
BACKWARD: CAGCAGCCAATGTCCAAA
Insert Length: 669 Std Error: 69.00
Plate: 11079 row: 09 column: F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /organism="Homo sapiens"
/mol_type="mRNA"
/db xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          High quality sequence start: 98
High quality sequence stop: 668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CV030364.1 GI:51488613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Collection"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PCR PRimers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      POLYA-No.
                                                                                                                                                                           2058
                                                                                                                                                                                                                                                                   2118 (
                                                                                                                                                                                                                                                                                                                                                                                                                                            DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                     CV030364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORIGIN
                                                                                                                          g
                                                                                                                                                                                                                     셤
                                       유
                                                                                   ઠે
                                                                                                                                                                           ઠ
                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1757
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1817
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1877
                                                                                                                                                                                                                                                                                                                                                      AM956628 558 bp mRNA linear EST 01-JUN-2000 EST368698 MAGE resequences, MAGD Homo sapiens cDNA, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1937
                                                                                                        CTACCTGCTGAGTCTGATGCAACCCAAGCCGGGGGC-CCCGCGCCTCCAGCCCCCACCCA 1288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               300
                                                                                                                                                                                             1289 ACCAGAGAGGGGTTGTGCTCCTTGGCGGCAGATGGGCTCTGGAATCAGAAATCCTATTT 1347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                       589 TGCANAGAGGGTTGTCCTTCGCCGCAGATGGGATCTGGAATCAGAAAAATCTTATT 647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Butheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               in a model of colon tumor microarray
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181 CCAGGTGATCGTGAGCAACATTGCCTCCAAGATGGAGCACATGGTCTCCTCGTTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCACCTGGAGAAGAGTCTCTGGTGGAAGGTCTCGCCGCACATCAAGATGGACCTGTTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTGGATCCAAAGCAAAGCTCAGAGCGACGGCTCCACCCTGCAGGAGGCTCCTTGGAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Greenrechangeahaderehandedadeereereereeradeadeereerregager
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121 CTTCAGCTGCTTGTACGAGATCCAGGAGGAGGAGTTTATCCAGCAGGCCCTGAGCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCAGGTGATCGTGGTCAGCATTGCCTCCAAGATGGAGCACATGGTCTCCTCGTTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 CCACCTGGAGAAGAGTCTCTGCTGGAAGGTCTCGCCGCACATCAAGATGGACCTGTTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTTCAGCTGCTTGTACGAGATCCAGGAGGAGTTTATCCAGCAGGCCCTGAGCCACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 (bases 1 to 568)
Hegdep., Qi,R., Abernathy,K., Dharap,S., Gaspard,R., Gay,C.,
Holt,I.E., Saeed,A.I., Sharov,V., Lee,N.H., Yeatman,T.J. and
Quackenbush,J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                15.9%; Score 494.2; DB 2; Length 568; 97.4%; Pred. No. 1.2e-109; ive 0; Mismatches 10; Indels 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MD 20850, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1. .568 ... / Acganism="Homo sapiens" / morganism="Homo sapiens" / mol_type="mRNA" / db xref="texon:9606" / clone lib="MAGE resequences, MAGD" / note="Vector: pBluescriptSKm"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Assessment of gene expression patterns in metastasis using a 19,200 element cDNA mic Unpublished (2000)
Contact: John Quackenbush
The Institute for Genomic Research
9712 Medical Center Dr., Rockville, MD 206
Fax: 301 838 3528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                AW956628
AW956628.1 GI:8146311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Email: johnq@tigr.org
Plate: 94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Seq primer: Reverse.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                      AW956628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Simi
Matches 523;
                                                                                                                                               529
                  1170
                                                                                                     1230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1698
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1878
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                         DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                              ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                        RESULT 6
AW956628
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORIGIN
```

음

ઠે 셤 ઠે 셤 셤

ઠે

ò 셤 ò

```
Contact: Mahairas GG, Wallace JC, Hood L
High Throughput Sequencing Center
University of Washington
401 Queen Anne Avenue North, Seattle, WA 98109, USA
401 Queen Anne Avenue North, Seattle, WA 98109, USA
701: (206) 616-3867
Fax: (206) 616-3867
Email: jwallacedu washington.edu
Clones are derived from the human BAC library RPCI-11. For BAC
11brary availablility, please contact Pieter de Jong
11brary availablility, please contact Pieter de Jong
11brary availablility, please contact Pieter de Jong
11brary availablility, please contact Pieter de Jong
11brary availablility, please contact Pieter de Jong
11brary availablility, please contact Pieter de Jong
11brary availablility in the human BAC Library RPCI-11. For BAC
11brary availablility, please contact Pieter de Jong
11brary availablility in Secure availablility equence stop: 496.
11brary RPCI Plantington.edu
11brary RPCI Plantington.edu
11brary RPCI Plantington.edu
11brary RPCI Plantington.edu
11brary RPCI Plantington.edu
11brary RPCI Plantington.edu
11brary RPCI Plantington.edu
11brary RPCI Plantington.edu
11brary RPCI Plantington.edu
11brary RPCI Plantington.edu
11brary RPCI Plantington.edu
11brary RPCI Plantington.edu
11brary RPCI Plantington.edu
11brary RPCI Plantington.edu
11brary RPCI Plantington.edu
11brary RPCI Plantington.edu
11brary RPCI Plantington.edu
11brary RPCI Plantington.edu
11brary RPCI Plantington.edu
11brary RPCI Plantington.edu
11brary RPCI Plantington.edu
11brary RPCI Plantington.edu
11brary RPCI Plantington.edu
11brary RPCI Plantington.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAGGTGCTGCACTTGTATGGCGCCACCTACAGGGGGACGGGGAAGACCGGCGCGAGGTGC 1959
                                                                                                                                                                                                                                                                                                                                                                                                                                                /clone lib="RPCI-11 Human Male BAC Library"
/note="Vector: pBACe3.6; Site_1: EcoRI; Site_2: EcoRI;
/note="Vector: pBACe3.6; Site_1: EcoRI; Site_blood DNA was isolated from one randomly chosen donor and partially disested with a combination of EcoRI and EcoRI Methylase. Size selected DNA was cloned into the pBACe3.6 vector at EcoRI sites"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGGAAGGTCTCGCCGCACATCAAGATGGACCTGTTGCAGTGGATCCAAAGCAAAGCTCAG 1719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CGCTTCCTGTTTGGACTCCTGAACGAGGACCAGGAGCCACCTGGAGAAGAGTCTCTGC 1659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGCGACGCTCCACCCTGCAGCAGGCTCCTTGGAGTTCTTCAGCTGCTTGTACGAGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241 AGCGACGCTCCACCCTGCAGCGCTCCTTGGAGTTCTTCAGCTGCTTGTACGAGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAGGAGGAGGTTTATCCAGCAGGCCCTGAGCCACTTCCAGGTGATCGTGGTCAGCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATTGCCTCCAAGATGGAGCACATGGTCTCCTCGTTCTGAAGCGCTGCAGGAGCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1540 GIGACCAGGCIGITGACCGAGIACGCGTTTTCTGAAAGGAGCTTCCTGGCACTCACCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 465.2; DB 8; Length 496;
Pred. No. 1.4e-102;
0; Mismatches 19; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                /organism="Homo sapiens"
/mol_type="genomic DNA"
/mol_type="genomic DNA"
/db_xref="taxon:9666"
/clone="plate=984 Col=8 Row=E"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1960 TCCGCAGGAGCGCAC 1974
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 15.0%;
Best Local Similarity 96.2%;
Matches 476; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                            /sex="male"
                                                                                                                                                                                                                                                                                                                                               1. .496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                                                      source
PUBMED
                                                                                                                                                                                                                                                                                                                                 FEATURES
               COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       염
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 (bases 1 to 496)
Mahairas, G.G., Wallace, J.C., Smith, K., Swartzell, S., Holzman, T.,
Keller, A., Shaker, R., Furlong, J., Young, J., Zhao, S., Adams, M.D. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AQ726243
HS 5408 A2 C04 SP6E RPCI-11 Human Male BAC Library Homo sapiens
genomic clone Plate=984 Col=8 Row=E, genomic survey sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAGCCAGACGAGGAGCCCCCGAGCCACCGCGCACCGTGGTCATGCAAGGCGCGGGAGGG 579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                        288
                                                                                                                                                                                                                                                                                                                                                                                                     241 AACAGGAAGGACCTGTGGGAGAGAGACAGAGAGAGAGGGTCTGGTGAGGGATACCCCACCT 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    459
                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                               GAGGCTGTGGGAACTGGAAGTTCAAGTTATACCTGGGGACGGCGGACAGAGCTGGGAGAA 120
                                                                                                                                                                     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                          9
                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       and
                                                                                                                                                                                                                                                                                                                               ATCACCCACTTCGGGCCAGAGGCGGGCTGGTTGGCTCTCAGCACCTTTGAGCGGATA
                                                                                                                                                                                                                                                                                                                                                                      AACAGGAAGGACCTGTGGGAAGAGGACAGAGAGGACCTGGTGAGG-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301 GGTGGCCCGTCCTCACTTGGGAACCAGTCAACATGCCTTCTGGAAGTCTCTTGTCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -----GATCCCCAGGAAACCTACAGGACTATGTCCGCAGGAAATTCCGGCTCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361 CCAAGAAAAGATCCCCAGGAAACCTACAGGGACTATGTCCGCAGGAAATTCCGGCTCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAAGACCGCAATGCGCGCCTAGGGGAATGTGTCAACCTCAGCCACCGGTACACCCGGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTGCTGGTGAAGGAGCACTCAAACCCCATGCAGGTCCAGCAGCAGCTTCTGGACACAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGGGGACACGCGAGGACCGTGGGACACCAGGCTAGCCCCATCAAGATAGAGACCCTCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGCAAGATCCCCTGGGGAAGCATGGAAAGGCCGGTCCCCTGGAAATGGCCCAGCTGCTC
                                                                                                                                                                                                                                                                                                ATCACCCACTTCGGGCCAGAGGCCTGGAGGTTGGCTCTCAGCACCTTTGAGCGGATA
                                                                      ATGCTACGAACCGCAGGCACGGCCTCTGTCGCCTGTCCACCTACTTGGAAGAACTC
                                                                                                           1 Argeraceaacecaeecaeecaeececrerereececrerecaecracriseaaeaacre
                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence-tagged connectors: A sequence approach to mapping scanning the human genome Proc. Natl. Acad. Sci. U.S.A. 96 (17), 9739-9744 (1999) 99380589
                                     81;
 1699
 Length
                                     Indels
Score 493.8; DB 7;
Pred. No. 1.5e-109;
); Mismatches 2;
                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AQ726243
AQ726243.1 GI:5485912
 15.9%;
nilarity 87.6%;
Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ||||||||||||||
ATAGGCAAG 669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  580 ATAGGCAAG 588
 Query Match
Best Local Similarity
Matches 586; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hood, L.
                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            520
                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                      289
                                                                             н
                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              289
                                                                                                                                                       61
                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               JOURNAL
MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 8
AQ726243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                           원
                                                                                                                                                                                                                                                                                                      ò
                                                                               ò
                                                                                                               원
                                                                                                                                                       ò
                                                                                                                                                                                         셤
                                                                                                                                                                                                                            ò
```

240

180

1599

09

ö

;

1839

```
/tissue_type="leukocyte"
/lab_bost="DH10B"
/lab_bost="DH10B"
/clone_lbb="NIH_MGC_118"
/note="Vector: pGVN-SPORT6; Site_1: NotI; Site_2: EcoRV note="Vector: pGVN-SPORT6; Site_1: NotI; Site_2: EcoRV (destroyed); RNA source leukocytes from anonymous pool of non-activated adult donors. Library is oligo-dT primed and directionally cloned (EcoRV site is destroyed upon cloning). Average insert size 1.7 kb, insert size range 1.2-3.3 kb. Library is normalized and enriched for fill-length clones and was constructed by C. Gruber (Invirrogen). Research Genetics tracking code 027. Note:
                                                                                             1839
                                                                                                                                                                                                                                                                                       1959
                                                                                                                                                                                           1899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   B1911853 764 bp mRNA linear EST 16-OCT-2001
603063634F1 NIH_MGC_118 Homo sapiens cDNA clone IMAGE:5212737 5',
                                                                                                                                            360
                                                                                                                                                                                                                                        420
                                                                                                                                                                                                                                                                                                                                      480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 764)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Context: Robert Strausberg, Ph.D.
Context: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Life Technologies, Inc.
CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: The I M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:
http://inge.llnl.gov
Plate: LLAMILS4 row: c column: 10
High quality sequence start: 22
High quality sequence start: 22
High quality sequence stop: 764.
Location/Qualifiers
Location/Qualifiers
Location/Qualifiers
// Organisme=HHomo sapiens"
                                                                                                                                                                                                                                                                                         CAGGTGCTGCACTTGTATGGCGCCACCTACAGCGCGGAACGGGGAAGACCGCGCGAGGTGC
                                                                                                                                                                                                                                                                                                                  421 CAGGTGCTGCACTTGTATGGCGCCCACCTACAGCGCGGACGGGGAGGACGCGCGAGGTGC
                                                 241 AGCGACGGCTCCACCCTGCAGGGCTCCTTGGAGTTCTTCAGCTGCTTGTACGAGATC
                                                                                                CAGGAGGAGGAGTTTATCCAGCAGGCCCTGAGCCACTTCCAGGTGATCGTGGTCAGCAAC
                                                                                                                                            301 CAGGAGGAGGAGTNTATCCAGCAGGCCCTGAGCCACTTCCAGGTGATCGTGGTCAGCAAC
                                                                                                                                                                                           ğ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 (bases 1 to 764)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          83;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         13.7%; Score 426; DB 4; Length 764; 86.7%; Pred. No. 6.5e-93; Live 0; Mismatches 0; Indels 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (Invitrogen). Research Gene
this is a NIH MGC Library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:5212737"
                                                                                                                                                                                                                                                                                                                                                                                     1960 TCCGCAGGAGCGCACAC 1976
                                                                                                                                                                                                                                                                                                                                                                                                                          481 ICTCGATGATCGCACAC 497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    mRNA sequence. _ _
BI911853
BI911853.1 GI:16175736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 13.7
Best Local Similarity 86.7
Matches 539; Conservative
                                                                                                                                                                                                                                                                                         1900
                                                                                                1780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            B1911853
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMMENT
                                     셤
                                                                                             à
                                                                                                                                  셤
                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                        유
                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Contact: Mahairas GG, Wallace JC, Hood L
High Throughput Sequencing Center
University of Washington
401 Queen Anne Avenue North, Seattle, WA 98109, USA
Tel: (206) 616-3868
Fax: (206) 616-3868
Email: jwallace@u.washington.edu
Clones are derived from the human BAC library RPCI-11. For BAC
Library availablity, please contect Pieter de Jong
(pieter@dejong.med.buffalo.edu). Clones may be purchased from
BACPAC Resources (http://bacpac.med.buffalo.edu/ordering_bac.htm)
or from Resear h Genetics (info@resgen.com). BAC end Web Server:
http://www.htsc.washington.edu
Seq primer: SP6
Class: BAC ends
High quality sequence stop: 499.
                                                                                                                                                                                                                                                                                    1 (bases 1 to 499)
Mahairas,G.G., Wallace,J.C., Smith,K., Swartzell,S., Holzman,T.,
Keller,A., Shaker,R., Furlong,J., Young,J., Zhao,S., Adams,M.D. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /clone_lib="RPCI-11 Human Male BAC Library"
/note="Vector: pBACe3.6; Site_1: EcoRI; Site_2: EcoRI;
Male blood DNA was isolated from one randomly chosen donor and partially disested with a combination of EcoRI and EcoRI Methylase. Size selected DNA was cloned into the pBACe3.6 vector at EcoRI sites"
                                              AQ814983 499 bp DNA linear GSS 25-AUG-1999 HS_5249_B2_G05_SP6E RPCI-11 Human Male BAC Library Homo sapiens genomic clone Plate=825 Col=10 Row=N, genomic survey sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGGAAGGICTCGCCGCACATCAAGATGGACCTGTTGCAGTGGATCCAAAGCAAAGCTCAG 1719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                     Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121 CGCTTCCTGTNTGGACTCCTGAACGAGGAGACCAGGAGCCACCTGGAGAAGAGTCTCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181 TGGAAGGTCTCGCCGCACATCAAGATGGACCTGTTGCAGTGGATCCAAAGCAAAGCTCAG
                                                                                                                                                                                                                                                                                                                                                                           Sequence-tagged connectors: A sequence approach to mapping and scanning the human genome Proc. Natl. Acad. Sci. U.S.A. 96 (17), 9739-9744 (1999) 99380589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTTGCAGCTATGTACTATATCCTGGACGAGGGGAGGGCGGGGCCCAGACCAGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Trigicicianteracianalectigaacaaagagagagagagagaaagaccaagaccaagac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1540 GTGACCAGGCTGTTGACCGAGTACGCGTTTTCTGAAAGGAGCTTCCTGGCACTCACCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 499;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 463.8; DB 8;
Pred. No. 3.2e-102;
0; Mismatches 23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /mol_type="genomic_DNA"
/db_xref="taxon:9606"
/clone="Plate=825 Col=10 Row=N"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1. .499
/organism="Homo sapiens"
                                                                                                                                            AQ814983.1 GI:5775961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           14.9%;
95.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /sex="male"
                                                                                                                                                                                           sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 95.4
Matches 474; Conservative
                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10449764
                                                                                                                      40814983
                                                                                                                                                                                                                                                                                                                                                            Hood, L.
                                                                                                                                                                                           Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                              LOCUS
                                                                                                                                                                                                               ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE
PUBMED
                                                                                                                    ACCESSION
                                                                                                                                       VERSION
KEYWORDS
SOURCE
RESULT 9
AQ814983
                                                                                                                                                                                                                                                                                       REFERENCE
                                                                                                                                                                                                                                                                                                             AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                               JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURES
                                                                                                                                                                                                                                                                                                                                                                                  TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ద
```

.. ن

ઠે

ò

us-10-781-294-23.rst

ò 용 ò a ò

```
HSW800983 4123 bp mRNA linear HTC 22-SEP-2004
Homo sapiens mRNA; cDNA DKFZp58601822 (from clone DKFZp58601822).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAGGAGGAGGAGTITATCCAGCAGGCCCTGAGCCCACTTCCAGGTGATCGTGGTCAGCAAC 1839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATTGCCTCCAAGATGGAGCACATGGTCTCCTTCTGTGTGAAGCGCTGCAGGAGCGCC 1899
                                                                                                                                                                                                                                                                                                  /clowe lib="RPCI-11 Human Male BAC Library"
/note="Vector: pBACe3.6; Site_1: EcoRI; Site_2: EcoRI;
/note="Vector: pBACe3.6; Site_1: EcoRI; Site_2: EcoRI;
Male blood DNA was isolated from one randomly chosen donor and partially disested with a combination of EcoRI and EcoRI Methylase. Size selected DNA was cloned into the pBACe3.6 vector at EcoRI sites"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
Homo sapiens
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Email: jwallace@u.washington.edu
Clones are derived from the human BAC library RPCI-11. For BAC
Clones are derived from the human BAC library availability, please context Fieter de Jong
(pieter@dejong.med.buffalo.edu). Clones may be purchased from
BACPAC Resources (http://bacpac.med.buffalo.edu/ordering_bac.htm)
or from Resear h Genetics (info@resgen.com). BAC end Web Server:
http://www.htsc.washington.edu
http://www.htsc.washington.edu
BAG primer: SP6
Class: BAC ends
High quallity sequence stop: 449.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGGGAGGGCTCCACCCTGCAGCAGGGCTCCTTGGAGTTCTTCAGCTGCTTGTACGAGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1480 TTTGCAGCTATGTACTATATCCTGGACGAGGGGAGGGCGGGGCCAGGCCCAGACCAGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTGACCAGGCTGTTGACCGAGTACGCGTTTTCTGAAAGGAGCTTCCTGGCACTCACCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGCTTCCTGTTTGGACTCCTGAACGAGACCAGGAGCCACTGGAGAAGAGTCTCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1660 TGGAAGGTCTCGCCGCACATCAAGATGGACCTGTTGCAGTGGATCCAAAGCAAAGCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61 GTGACCAGGCTGTTGACCGAGTACGCGTTTTCTGAAAGGAGCTTCCTGGACTCACCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 449;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 424.4; DB 8;
Pred. No. 1.4e-92;
0; Mismatches 17;
                                                                                                                                                                                             1. 449
/organism="Homo sapiens"
/mol type="genomic DNA"
/db_xref="texon:9606"
/clone="Plate=706 Col=9 Row=C"
/sex="male"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAGGIGCIGCACITGIAIGGCGCCACCI 1927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AL117470
AL117470.1 GI:5911938
                                                                                                                                                                                                                                                                                                                                                                                                                                        13.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Similarity 96.2
Matches 431; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1540 (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              421
                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                               source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 12
HSM800983
LOCUS
                                                                                                                                                                                               FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                              ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 449)
Mahairas, G.G., Wallace, J.C., Smith, K., Swartzell, S., Holzman, T., Keller, A., Shaker, R., Furlong, J., Young, J., Zhao, S., Adams, M.D. and Hood, L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A0443134 11 B05 SP6E RPCI-11 Human Male BAC Library Homo sapiens genomic clone Plate=706 Col=9 Row=C, genomic survey sequence.
                                                                                                                                                                                                                                                                                               288
                                                                                                                                                                                                                                                                                                                                                             288
                                                                                                                                                                                                                                                                                                                                                                                                                               339
                                                                                                                                                                                                                                                                                                                                                                                                                                                               562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               682
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                517
                                                                                                                                                                                                                                                 442
                                                                                                                                                                                                                                                                                                                                                                                              502
                                                              202
                                                                                                                               262
                                                                                                                                                                180
                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCGGGGACAC-GCGAGGACCGTGGGACACCAGGTAGCCCCATCAAGATAGAGACCCTCT
                                                                                                                                                                                                                                                                                             AACAGGAAGGACCTGTGGGAGAGAGACAGAGAGGACCTGGTGAGG------
                                                                                                                                                                                                                                                                                                                                                                                             443 GGIGGCCCGTCCTCTGGGAACCAGTCAACATGCCTTCTGGAAGTCTCTTGTCACT
                                                                                                                                                                                                                                                                                                                                                                                                                               -----GATCCCCAGGAAACCTACAGGGACTATGTCCGCAGGAAATTCCGGCTCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                             CCAAGAAAAGATCCCCAGGAAACCTACAGGAACTATGTCCGCAGGAAATTCCGGCTCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAAGACCGCAATGCGCG-CCTAGGGGAATGTGTCAACCTCAGCCACCGGGTACACCCGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAAGACCGCAATGCGCGCCTAGGGGAATGTGTCAACCTCAGCCACCGGTACACCCGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCTGCTGGTGAAGGAGCACTCAAACCCCATGCAGGTCCAGCAGCAGCTTCTGGACACAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ccrecresreaageageacrecaaaceceargeagerecageageagearrergeacaeage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181 ATCACCCACTTCGGGCCAGAGGAGGCCTGGAGGTTGGCTCTCAGCACCTTTGAGCGGATA
                                                                                                                                                                                                                                                                                                                GAGGCTGTGGAACTGAAGTTCAAGTTATACCTGGGGACCGCGACAGAGCTGGGAGAA
                                                                                                                                                                GGCAAGATCCCCTGGGGAAGCATGGAGAAGGCCGGTCCCCTGGAAATGGCCCAGCTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence-tagged connectors: A sequence approach to mapping scanning the human genome
Proc. Natl. Acad. Sci. U.S.A. 96 (17), 9739-9744 (1999)
99380589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Contact: Mahairas GG, Wallace JC, Hood L
High Throughput Sequencing Center
University of Mashington
401 Queen Anne Avenue North, Seattle, WA 98109, USA
TEL: (206) 616-3818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TIGAGCCAGACGAGGAGCGCCC 539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTGAGCCAGACGAGGAGCGCCC 764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AQ443134.1 GI:4554473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10449764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AQ443134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      518
                                                                                                                                                                                                                                                                                                                                   383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      563
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     743
                                                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                                                                                                                                     289
                                                                                                                                    203
                                                                                                                                                                     121
                                                                                                                                                                                                                                                                    323
                                                                                                                                                                                                                                                                                                                                                                    289
                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     JOURNAL
MEDLINE
PUBMED
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 11
AQ443134
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE
```

g

유

g

8 8 ď ò

ò

g ò 셤 ò

ò

셤 ò 셤

ò

1779

420

1659

180

1599

9

120

ö

838 425 868 485 958 545

```
CACACAAGGTGATGCTGGACTGGCCGGACGGGAAGCTCTTCCAAGGCAGATTTGATTATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1008 TGAG---CTACAGCTTCATTCACCTCTGTTTCCAAGAGTTCTTTGCAGCAATGTCCTATG
                                                                   CCAGGCAGGTGAAGGAAGCCTGGGGGAGAGGCCAGCTGTATGGGGACCGCTTCCAGCATG
                                                                                                                                      TCTTCTACATCAACTGCAGGGAGATGAACCAGAGTGCCACGGAATGCAGCATGCAAGACC
                                                                                                                                                                                                  rcriciacricacrecadadericececeas---recaaderesadrerecerdade
                                                                                                                                                                                                                                                                         TCATCTTCAGCTGCTGGCCTGAGCCCAGCGCGCCTCTCCAGGAGCTCATCCGAGTTCCCG
                                                                                                                                                                                                                                                                                                                                        rcarcegaaaagaregeacaecreceeerceerragaeagarecrererageeeae
                                                                                                                                                                                                                                                                                                                                                                                                           AGCGCCTCCTTTTCATCATCGACGCTTCGATGAGCTCAAGCCTTCTTTCCACGATCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           36 AGCGGCTGCTCTTCATCCTCGATGGTGTAGATGAGCCAGGATGGGTCTTGCAGGAGCCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              839 AGGGACCCTGGTGCTCTGCTGGAGGAGAAACGGCCCACGGAGCTGCTTCTTAACAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GTTCTGAGCTCTGTCTGCACTGGAGCCAGGCCACAGGCGGGGGATGCACTGCTGGGGCAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     899 TAATTCGGAAGAAGCTGCTCCCTGAGCTATCTTTGCTCATCACCACACGGCCCACGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       959 TGGAGAAGCTCCACCGTCTGCTGGAGCACCCCAGGCATGTGGAGATCCTGGGCTTCTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           546 TGCAGAACCTCATTCCTTCTTTGGAGCAGGCACGTTGGGTAGAGGTCCTGGGGTTCTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1019 AGGCAGAAAGGAAGGAATACTTCTACAAGTATTTCCACAATGCAGACAAGGCGGCCCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1079 TCTTCAATTACGTGAGGGACAACGAGCCTCTCTTCACCATGTGCTTCGTCCCCCTGGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTTTAGGTTGGTCAAATCAAAGAGCTCTGGGCCCTGTGTCTTGTGCCCTGGGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       726 CCTGGCTGGCCTGCACTTGCCTGATGCAGCAGGAAGGAAAAACTCACACTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGTCCAGGACCACCACTGCAGTGTACATGCTCTACCTGCTGAGGTCTGATGCAACCCAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             786 CTTCCAAGACCACCACAACCCTCTGTCTACATTACCTTGCCCAGGCTCTCCAAGCTCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CGGGGGCCCCGCCCTCCAGCCCCCAACCAAGAGAGGGTTGTGCTCCTTGGCGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATGGGCTCTGGAAATCAGAAAATCCTATTTGAGGAGCAGGACCTCCGGAAGCACGGCCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   888 AGGGCATCTGGCAAAAAAAGACCCTTTTCAGTCCAGATGACCTCAGGAAGCATGGGTTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACGGGGAAGACGTCTCTGCCTTCAACATGAACATCTTCCAGAAGGACATCAACTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         948 ATGGGGCCATCATCTCCACCTTCTTGAAGATGGGTATTCTTCAAGAGCACCCCATCCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1439 AGAGGTACTACAGCTTCATCCACTTGAGTTTCCAGGAATTCTTTGCAGCTATGTACTATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCCTGGACGAGGGGGGGGGGCAGGCCCAGACCAGGACGTGACCAGGCTGTTGACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  rcriccaccarcascacacacacacacarcarcaracarcarcaracarriccaaaaca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGTACGCGTTTTCTGAAAGGAGCTTCCT-----GGCACTCACCAGCCGCTTCCTGTTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cecraeaagcararesaaracarescererreseseearcaaecaearerrireerarias
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GACTCCTGAACGAGGACCAGGAGCCACCTGGAGAAGAGTCTCTGCTGGAAGGTCTCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ccrierraagreareaceceacacacacacacacacacarcarrrcacrecceccrerc
   599
                                                                                                                                                                                                     249
                                                                                                                                                                                                                                                                         719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1065
                                                                   189
                                                                                                                                                                                                                                                                                                                                            306
                                                                                                                                                                                                                                                                                                                                                                                                           119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1613
                                                                                                                                         629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1559
                                                            셤
                                                                                                                                  ò
                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                     유
                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                    Neuherberg, GERMANY
Clone from S. Wiemann, Molecular Genome Analysis, German Cancer
Research Center (DKPZ); Email s wiemann@dkfz.heidelberg.de;
sequenced by BMFZ (Biomedical Research Center at the
Heinrich-Heine-University, Duesseldorf/Germany) within the cDNA
sequencing consortium of the German Genome Project. This clone
(DKFZp58601822) is available at the RZPD Deutsches
Ressourcenzentrum fuer Genomforschung GmbH in Berlin,
Please contact RZPD for ordering:
http://www.rzpd.de/cgi-bin/products/cl.cgi?cloneID=DKFZp58601822
http://www.rzpd.de/cgi-bin/products/cl.cgi?cloneID=DKFZp58601822
Further information about the clone and the sequencing project is
available at http://mips.gff.de/projects/cdna/.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /product=hypothetical protein"
/product=hypothetical protein"
/protein id="CAB55945.1"
/brotein id="CAB55945.1"
/db_xref="GOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000"
/db_xref="TOA;090000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SILGKTILPEASFLITARTTALONLIPSLEQARWUSVLGFSESSREYFYFYFUERD
ALARARUNKSKRELMALCIUPWNSWATATCLMOWRKREKLITISKTTTTLCHTYLAQ
ALQAQPLGPQLRDLCSLAAEGIWOKKTLESPDDLRKHGLDGA I STFLKMGLIQEHPI
PLSYSFIHLCPQEFFAAMSYVLEDEKGKGKHSNCIIDLEKTLEAYGIHGLFGASTTRF
TLGLSDEGEREMENIFHCRLSQCRIMMQWVPSLQLLLQPHSLESLHCYSTRAKTFL
TOWMAHPERMANCYTEDMELLYCTKFRIWKKLGLLGPGTSTRSPRSPTWYLFRW
VPVTDAYWQILFSVLKVTRNLKELDLSGGNSLSHSAVKSLCKTLERPRCLLETHRAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GLTAEDCKĎLAFGLRANQTLTELDLSFNVLTDAGAKHLCQRLRQPSCKLQRLQIVSCG
TLSDCCQDLASAVLSASPSLKELDLQQNULDDVGVRLLCGREHPACKTI RIGLDQTTL
SDENRQELRALEQERCQLL I FSRRKSSWIPTEGLDTGEMSNSTSSLKRQRLGSERAA
SHVAQANLKLLDVSKI PPIAEIARESSPBVVPVBLLCVPSPASQGDLHTKPLGTDDDF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WGPTGPVATEVVDKEKNLYRVHFPVAGSYRWPNTGLCFVMREAVTVEIEFCVWDQFLG
EINPQHSWWVAGPLLDIKAEPGAVEAVHLPHFVALQGGHVDTSLFQVAHFKEEGMLLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RSPGEDQLFSEFYVGHLĞSGIRLQVKDKKDETLVWEALVKPGDLMPATTLIPPARIAV
PSPLDAPQLLHFVDQYREQLIARVTSVEVVLDKLHGQVLSQEQYERVLAENTRPSQMR
KLFSLSQSWDRKCKDGLYQALKETHPHLIMELWEKGSKKGLLPLSS"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            KPARVELHHI VLENPSFSPLGVLLKMIHNALRFI PVTSVVLLYHRVHPEEVTFHLYLI
PSDCSIRKAI DDLEMKFQFVRIHKPPPLTPLYMGCRYTVSGSGGMLEI LPKELELCY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           188
                                                                   Osanger, A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          hutel). Vector pSport1; host
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCGAGCCACCGCGCACCGTGGTCATGCAAGGCGCGGGCAGGGATAGGCAAGTCCATGCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cccaagaaccrcgcaragrcaracrigcaggggggggggagragaarrgggaggrcaacrgg
                                                                                                                                                                                              Submitted (22-SEP-2004) MIPS, Ingolstaedter Landstr.1, D-85764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /tissue_type="uterus"
/clone_lib="586 (synonym: hutel). Vector pSportl;
DH10B; sites Norl + Sall/Mlul"
/dev stage="adult"
/note="death effector filament-forming Ced-4-like
apoptosis protein, N-terminus truncated"
Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        81;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 4123;
                                                               Weil, B., Amid, C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 398; DB 3; Length 41
Pred. No. 7.5e-86;
0; Mismatches 855; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /mol_type="mRNA"
/db_xref="RZPD:DKFZp58601822"
/db_xref="taxon:9606"
/clone="DKFZp58601822"
                        1 (bases 1 to 4123)
Kochrer,K., Bayer,A., Mewes,H.W.,
Fobo,G., Han,M. and Wiemann,S.
The German cDNA Consortium
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /gene="DKFZp58601822"
<2. .3580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gene="DKFZp58601822"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     12.8%;
53.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .4123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                      Direct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Simi
Matches 1082;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           129
                                                                                                                                                               TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gene
                            REFERENCE
                                                               AUTHORS
                                                                                                                               CONSRIM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURES
                                                                                                                                                                                                                                                              COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
```

1138

725

1198

785

1258

845

1078

665

1018

605

1318

887

1378

947

1438

1007

1498

1064

1558

1612

1184

1124

1672

and

```
BC021272 3359 bp mRNA linear HTC 12-OCT-2004
Homo sapiens cDNA clone IMAGE:4811303, containing frame-shift
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCTTCCTGTTTGGACTCCTGAACGAGAGACCAGGAGCCACCTGGAGAAGAGTCTCTGCT 1660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TIGCCICCAAGAIGGAGCACAIGGICTCCTCGTICTGICTGAAGCGCTGCAGGAGCGCCC 1900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /clone lib="CIT Approved Human Genomic Sperm Library D" /note="Organ: sperm; Vector: pBeloBAC11; BAC Clones in B-Coli DH10B"
             Mahairas G.G., Waliace, J.C., Smith, K., Swartzell, S., Holzman, T., Keller, A., Shaker, R., Furlong, J., Young, J., Zhao, S., Adams, M.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGGAGGAGGAGTTTATCCAGCAGGCCCTGAGCCACTTCCAGGTGATCGTGGTCAGCAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1541 TGACCAGGCTGTTGACCGAGTACGCGTTTTCTGAAAGGAGCTTCCTGGCACTCACCAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61 GCTTCCTGTTTGGACTCCTGAACGAGGAGCCAGGAGCCACCTGGAGAAGAGTCTCTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGAAGGTCTCGCCGCACATCAAGATGGACCTGTTGCAGTGGATCCAAAGCAAAGCTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCGACGGCTCCACCCTGCAGGCTCCTTGGAGTTCTTCAGCTGCTTGTACGAGATCC
                                                                                         Sequence-tagged connectors: A sequence approach to mapping and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                            scanning the human genome
Proc. Natl. Acad. Sci. U.S.A. 96 (17), 9739-9744 (1999)
99380589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 395, DB 8; Length 396;
Pred. No. 2.1e-85;
0; Mismatches 1; Indels
                                                                                                                                                                                          10449764
) 10449764
) 10449764
Contact: Mahairas GG, Wallace JC, Hood L Contact: Mahairas GG, Wallace JC, Hood L High Throughput Sequencing Center University of Washington
401 Queen Anne Avenue North, Seattle, WA 98109, USP Tel: (206) 616-3887
Fax: (206) 616-3887
Email: jwallace@u.washington.edu Sequence Tagged Connector Sequence Tagged Connector Sequence Tagged Connector Sequence Tagged Connector Sequence Tagged Connector High quality sequence Stop: 396.
High quality sequence Stop: 396.
                                                                                                                                                                                                                                                                                                         usa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGGTGCTGCACTTGTATGGCGCCACCTACAGCGCGG 1936
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /organism="Homo sapiens"
|mol_type="genomic DNA"
|db_xref="taxon:9606"
|clone="plate=3028 Col=14 Row=A"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GI:33878145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 99.7%;
Matches 395; Conservative
(bases 1 to 396)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        errors.
BC021272
BC021272.2
HTC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCESSION
VERSION
KEYWORDS
                                                                                                                                                 JOURNAL
MEDLINE
PUBMED
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 14
                        AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BC021272
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURES
                                                                                                   TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       염
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AQ094928
HS 3028 A2 A07 MF CIT Approved Human Genomic Sperm Library D Homo
Rapiens genomic clone Plate=3028 Col=14 Row=A, genomic survey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCACCAAACCCACATCTGGTTGGACCTGACAGGAAATGCACTGGAGGATTTGGGCC 2452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2453 IGAGGTTACTATGCCAGGGACTGAGGCACCCAGTCTGCAGACTACGGACTTTGTGGCTGA 2512
                                                                                                                                                                                                                                                                                                                                                                                       1972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1854 recascricercacricaccircaccircaccircicacidecidedecricecrical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1974 TGCGACTGCTGTGAGGGGCTCAGGCATCCTGCCTGCAAACTCATACGCCTGGGGCTGG 2033
                                                                              1792
                                                                                                                              1346
                                                                                                                                                                                  1852
                                                                                                                                                                                                                                                                                   TGGAGCACATGGTCTCCTCGTCTGAAGCGCTGCAGGAGCGCCCAGGTGCTGCACT 1912
                                                                                                                                                                                                                                                                                                                                                                                                                                             1499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1973 ACACGCTGTTGGTGCAGCTCAGACCAGAGGACGGTTCTGCTGGACGCCTACAGTGAAC 2032
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1500 ccaccarderadrecretricae ----éréereceareacadarécratreceáea 1553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2033 ATCTGGCAGCGCCCTGTGCACCAATCCAAACCTGATAGAGCTGTCTCTGTACCGAAATG 2092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1674 regadakcerjecegrindeergeeriergeericaeneaergaeriecaagakeringeer 1733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2213 CAGCTCTCATAGCCAATAAGAATTTGACAAGGATGGATCTCAGTGGCAACGGCGTTGGAT 2272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1734 Tridegciteaedeccaaccadeccridaccaaecridacticadecricaacricacec 1793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCCCAGGCATGATGCTGCTTTGCGAGGCCTGCGGCATCCCCAGTGCAGGCTGCAGATGA 2332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1794 ATGCTGGAGCCAAACACCTTTGCCAGAGACTGAGACAGCCGAGCTGCAAGCTACAGCGAC 1853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Trcagrigadgaagigicagciggagiccggggcrigicaggagarggcricigigcrcg 2392
                                                                                                                                                                                                                                     1403
                                                                                                                                                                                                                                                                                                                                         1404 recacercaria erecentración en recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerca de la recacerc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                             TCCTGACACAAGTGATGGCCCATTTCGAAGAA---TGGGCCATGTGTAGAAACAGACA
                                                                                                                                                                                                                                                                                                                                                                                    TGTATGGCGCCACCTACAGCGCGAACGGCGAAGACCGCGCGAGGTGCTCCGCAGGAGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1554 Tricrerecercerearcacagaaacergaagaacragaaacragaacragaacragaacragaaacr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCCTGGGCAGCCGGGGGGGTGAAGCTGCTCTGTCAAGGACTCAGACACCCCCAACTGCAAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTCAGAACCTGAGGCTGAAGAGGTGCCGCATCTCCAGCTCAGCCTGCGAGGACCTCTCTG
                                                                                                                                                                                  TTATCCAGCAGGCCCTGAGCCACTTCCAGGTGATCGTGGTCAGCAACATTGCCTCCAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                          1464 TGATT------GAGGGCAGCAGCAGCACACACATCAACATGGAGCC
                                                                              CCCTGCAGCAGCGCTCCTTGGAGTTCTTCAGCTGCTTGTACGAGATCCAGGAGGAGGAGT
                                                                                                              -GCTGCAGCCACACTCTCTGGAGTCCCTCCACTGCTTGTACGAGACTCGGAACAAAACGT
     2513 AGAICTGCCGCCTCACTGCTGCTGCTGTGACGAGCTG 2550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCAGACAACTCTGAGTGATGAGATGAGGCAGGAACTG 2071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sequence.
AQ094928
AQ094928.1 GI:3466375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2034
                                                                                                                                                                                                                                                                                                                                                                                                  1913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2333
                                                                                                                                                                                                                                                                                              1853
                                                                                   1733
                                                                                                                                                                                          1793
                                                                                                                                                                                                                                          1347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 13
AQ094928
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   쉱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                   ò
                                                                                                                                 셤
                                                                                                                                                                                       ò
                                                                                                                                                                                                                                     유
                                                                                                                                                                                                                                                                              õ
```

1720

120

9

180

ö

Gaps

7;

Gaps

99

572 528 632 588 692 646 752 705 812 765 872 825 932 885 992 945

```
1530 AGACCAG-----GACGTGACCAGGCTGTTGACCGAGTACGCGTTTTCTGAAAGGAGCTT 1583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGAGCAGGACCTCCGGAAGCACGCCCTAGACGGGGAAGACGTCTCTGCCTTCCTCAACAT
                                                                                                                             513 CCTCTTTGAGCCAGACGAGGAGCGCCCCGAGCCACCGCGCACCGTGGTCATGCAAGGCGC
                                                                                                                                                                                 469 CCGCCTTTTTGCTCCCAAGGAAACTGGGAAACAGCCACGTACAGTGATTATTCAAGGACC
                                                                                                                                                                                                                                           573 GGCAGGGATAGGCAAGTCCATGCTGGCACACAAGGTGATGCTGGACTGGGCGGACGGGAA
                                                                                                                                                                                                                                                                                                     529 ACAAGGAATTGGAAAAACGACACTCCTGATGAAGCTGATGATGGCCTGGTCGGACAACAA
                                                                                                                                                                                                                                                                                                                                                               GCTCTTCCAAGGCAGATTTGATTATCTTCTTCTACATCAACTGCAGGAGATGAACCAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                   589 GATCTTTCGGGATAGGTTCCTGTACACGTTCTATTTCTGCTGCAGAGAACTGAGGGGAG--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGCCACGGAATGCAGCATGCAAGACCTCATCTTCAGCTGCTGGCCTGAGCCCAGCGCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       647 -TTGCCGCCAACGAGTTTGGCTGACTTGATTTCCAGAGAGTGGCCTGACCCCGCTGCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCTCCAGGAGCTCATCCGAGTTCCCGAGCGCCTCCTTTTCATCATCGACGGCTTCGATGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TATAACAGAGATCGTGTCTCAACCGGAGAGACTCTTGTTCGTCATCGACAGCTTCGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCTCAAGCCTTCTTTCCACGATCCTCAGGGACCCTGGTGCCTCTGCTGGGAGGAGAAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCCCACGGAGCTGCTTAACAGCTTAATTCGGAAGAAGCTGCTCCCTGAGCTATCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 826 GCCGGTGCAGGTGCTTCTGAGCAGTTTGCTGAGGAAGAAGATGCTCCCGGAGGCCTCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCTCATCACCACGGCCCACGGCTTTGGAGAAGCTCCACCGTCTGCTGGAGCACCCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               886 GCTCATCGCCATCAAACCCGTGTGCCCGAAGGAGCTCCGGGATCAGGTGACGATCTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         946 AATCTACCAGCCCCGGGGATTCAACGAGAGTGATAGGTTAGTGTATTTCTGTTTTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCACAATGCAGAGCAGGCGGGCCAAGTCTTCAATTACGTGAGGGACAACGAGCCTCTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1006 CAAAGACCCGAAAAGAGCCATGGAAGCCTTCAATCTTGTAAGAGAAAGTGAACAGCTGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1113 CACCATGTGCTTCGTCCCCCTGGTGTGCTGGTGTGTGTACCTGCCTCCAGCAGCAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1066 TTCCATATGCCAAATCCCGCTCCTCTGCTGGATCCTGTGTACCAGTCTGAAGCAAGAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGAGGGTGGGGGGCTGTTGAGACAGACGTCCAGGACCACCACTGCAGTGTACATGCTCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gcagaaaggaccriggcccrigaccrecagaggaccrigaccrecrerig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCTGCTGAGTCTGATGCAACCCAAG---CCGGGGGCCCCGCGCGCCTCCAGCCCCCAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1186 cercritaacciericacacecreaesecesaeseceaesecesaerecesaaesecaesea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1290 CCAGAGAGGGTTGTGCTCCTTGGCGGCAGATGGGCTCTGGAATCAGAAATCCTATTTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGAAGACGACCTCCGGAGAAATGGGGTTGTTGACGCTGACATCCCTGCGCTGCTGCTGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAACATCTTCCAGAAGGACATCAACTGTGAGAGGTACTACAGCTTCATCCACTTGAGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1366 CAAGATACTTCTGAAGTACGGGGGGGGGGGGGGGCTCCTACGTGTTCCTCCTCCACGTGTGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1426 CCAGGAGTTCTGTGCCGCCTTGTTCTATTTGCTCAAGAGCCACCTTGATCATCCTCACCC
            Length 3359
                                    Pred. No. 9.9e-81;
0; Mismatches 1260;
      12.1%; Score 377; DB 3; 48.9%; Pred. No. 9.9e-81;
                                                                   Conservative
                                       Similarity
                                       Best Local Sim:
Matches 1269;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            . 90/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         993 (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                693
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           933
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1053
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1306
                                                                                                                                                                                                                                                                                                                                                               633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 753
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       873
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1233
            Query Match
                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             쉱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                             ઠે
                                                                                                                                                                                 요
                                                                                                                                                                                                                                           ଚ
                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NIH-MGC Project URL: http://mgc.nci.nih.gov
On Aug 19, 2003 this sequence version replaced gi:18204229.
Contact: MGC help desk
Email: cgapbs-remail.nih.gov
Tissue Procurement: ATCC
CDNA Library Preparation: Rubin Laboratory
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: National Institutes of Health Intramural
Sequencing Center (NISC),
Gaithersburg, Maryland;
Web site: http://www.nisc.nih.gov/
Contact: nisc_mageangri.nih.gov/
Contact: nisc_mageangri.nih.gov/
Akhter,N., Ayele K., Beckstrom-Sternberg,S.M., Benjamin,B.,
Blakesley,R.W., Bouffard,G.G., Breen,K., Brinkley,C., Brooks,S.,
Dietrich,N.L., Granite,S., Guan,X., Gupta,J., Haghighi,P.,
Hansen,N., Ho,S.-Lu, Karline,E., Kwong,P., Laric,P., Legaspi,R.,
Maduro,Q.L., Masiello,C., Maskeri,B., Mastrian,S.D.,McCloskey,J.C.,
McDowell,J., Pearson,R., Stantripop,S., Thomas,P.J., Touchman,J.W.,
Tsurgeon,C., Vogt,J.L., Walker,M.A., Wetherby,K.D., Wiggins,L.,
Young,A., Zhang,L.-H. and Green,E.D.
                                                                                                                                   Strausberg, R.L., Feingold, B.A., Grouse, L.H., Derge, J.G.,
Klausner, R.D., Collins, F.S., Wagner, L., Shenmen, C.M., Schuler, G.D.,
Altschul, S.F., Zeeberg, B., Buetow, K.H., Schaefer, C.F., Bhat, N.K.,
Hopkins, R.F., Jordan, H., Moore, T., Max, S. I., Wang, J., Hsieh, F.,
Diatchenko, L., Marusina, K., Farmer, A.A., Rubin, G.M., Hong, L.,
Stapleton, M., Soares, M.B., Bonaldo, M.F., Casavant, T.L.,
Stapleton, M., Soares, M.B., Bonaldo, M.F., Casavant, T.L.,
Scheetz, T.E., Brownstein, M.J., Uddin, T.B., Toshiyuki, S.,
Carninci, P., Prange, C., Raha, S.S., Loquellano, N.A., Peters, G.J.,
Abramson, R.D., Mullahy, S.J., Bosak, S.A., McKenn, P.J.,
McKernan, K.J., Malek, J.A., Gunaratne, P.H., Richards, S.,
Worley, K.C., Hale, S., Garcia, A.M., Gay, L.J., Hulyk, S.W.,
Villalon, D.K., Muzny, D.M., Sodergren, E.J., Lu, X., Gibbs, R.A.,
Fahey, J., Helton, E., Ketteman, M., Maddan, A., Rodrigues, S.,
Sanchez, A., Whiting, M., Madan, A., Young, A.C., Schmutz, J., Myers, R.M.,
Butterfield, Y.S., Krzywinski, M. I., Skalska, U., Schmutz, J., Myers, R.M.,
Butterfield, Y.S., Krzywinski, M. I., Skalska, U., Smailus, D.B.,
Generation and initial analysis of more than 15,000 full-length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov Series: IRAL Plate: 39 Row: g Column: 3 This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 19745161 This clone has the following problem: frame shifted.
                                                                Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Direct Submission
Submitted (14-JAN-2002) National Institutes of Health, Mammalian
Gene Collection (MGO), Cancer Genomics Office, National Cancer
Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                human and mouse cDNA sequences
Proc. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903 (2002)
12477932
                                                                                           Mammalia; Eutheria; Primates; Catarrhini; Hominidae;
                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /tissue type="Placenta, choriocarcinoma"
/clone lib="NIH MGC 21"
/lab host="DH10B-R"
/noce="Vector: pOTB7"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1. .3359
/organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:4811303"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Director MGC Project.
                                                                                                                       (bases 1 to 3359)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (bases 1 to 3359)
                                       sapiens
SOURCE
ORGANISM
                                                                                                                    REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JOURNAL
PUBMED
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REMARK
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORIGIN
```

1005 1112 1065 1172 1125 1232 1185 1289 1245 1349 1305 1409 1365 1469 1425

1052

1485

2512 TGTCCTGAAGGACGAAGGACTGAAAACTCTC 264 GCTCCAGACCCTGCGCTTGGCACTCTGCCGG 2724 TGTGGTCTCCAGCCACCCCACCCTCCG 2724 TGTGGTCTCCACGCCACCCACCTCGG 2724 AGACTGGGTCTCAGCATCAAAACCTGAAA 2844 ACTGGGCTGTGCTGGTTGCTGGCTGGGGGC 2844 ACTGGGGTGTGCTGGTTGCTGGCGGGGGGC 2844 ACTGGGGTGTGCTGGTGGTGGCGGGGGGGGGGGGGGGGTGGGTGGGTGGGTGGGTGGGCTGAAAGCTGAGGGCTGAAGGGGCTGAGGGGGGGG	PECOLZ 189 BCO12789 BCO12789 Homo sapiens CDNA clone IMAGE:39 BCO12789 BCO12789.2 GI:33872518 HTC. BCO12789.2 GI:33872518 HTC. BCO12789.2 GI:33872518 HTC. HOMO sapiens (human) ORGANISM HTC. HOMO sapiens (human) HTC. Mammalia: Butheria: Primates; Ca I (bases 1 to 3360) I (bases 1 to 336
4 3 4 3 6 3 6 3 6 3 6 3 6 3 6 3 6 3 6 3	
	2064 CCTGATAGACTGTTCTGTAATGCCTGGGCAGCGGGGGGGG
6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	6 16 16 16 16 16 16 16 16 16 16 16 16 16

```
A., Grouse, L.H., Derge, J.G.,
Wagner, L., Shenmen, C.M., Schuler, G.D.,
netcw, K.H., Schaefer, C.F., Bhat, N.K.,
Ferner, A.A., Rubin, G.M., Hong, L.,
Farmer, A.A., Rubin, G.M., Hong, L.,
conaldo, M.F., Casavaut, T.L.,
conaldo, M.F., Casavaut, T.L.,
t., S.S., Loquellano, N.A., Peters, G.J.,
Bosak, S.A., McEwan, P.J.,
t., S.S., Loquellano, N.A., Peters, G.J.,
Bosak, S.A., McEwan, P.J.,
t., A.M., Gay, L.J., Hulyk, S.W.,
t., A.M., Gay, L.J., Hulyk, S.W.,
todergren, E.J., Lu, X., Gibbs, R.A.,
todergren, E.J., Lu, X., Gibbs, R.A.,
th, M.M., Madan, A.C., Shevchenko, Y.,
th, Touchman, J.W., Green, E.D.,
t. Touchman, J.W., Green, E.D.,
t. Touchman, J.W., Green, E.D.,
t. Grimwood, J., Schmutz, J., Myers, R.M.,
t. M.I., Salalka, U., Smailus, D.E.,
nnes, S.J. and Marra, M.A.
                                                                                                                                                                                                                                                                                                                                                  CCAAGGCTTGTGAGAATCTTTACTTCACCCT 2903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ArccrecaAAcrecaAGrecregrr 3023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACAGTAGGTTGGCAGCGCTTCGAGTAACAAA 3083
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                mRNA linear HTC 12-OCT-2004
1957172, containing frame-shift
                                                 aggaderregaerrreaacgaecrege 2783
                                                                                                                                                                                               adarrcriccaaarrederecaaredaaarcde 2691
                                                                                                                                                                                                                                                   GECTGCAACATCCCGCCTGCAGACTCCAGAA 2843
                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCTGACCAACACGCCCTAGGGGACACAGG 2963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGGCACTTCTGAGGCTGAGGAGAGAGAGAAA 2991
CTGCGAGGCCTTGAAACATCCGGACTGCTG 2571
                                                                                                                                                                                                                                                                                                  crchdacgcahacgdarhdccdcrhagadan 2751
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               raniata; Vertebrata; Euteleostomi;
Jatarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99 (26), 16899-16903 (2002)
```

```
1065
                                                                                                                                                                 1172
                                                                                                                                                                                                                                                                         1232
                                                                                                                                                                                                                                                                                                                           1185
                                                                                                                                                                                                                                                                                                                                                                               1289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1943
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2063
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2037
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAAGAGCTTAGGGGAGCGTGGCAATCCTCAGGGACAGGTGGATTCCTTGGCGATATTTTA
          946 AATCTACCAGCCCCGGGGATTCAACGAGAGTGATAGGTTAGTGTTATTTCTGCTGTTTCTT
                                                                                                                CAAAGACCCGAAAAGAGCCATGGAAGCCTTCAATCTTGTAAGAGAAAAGTGAACAGCTGTT
                                                                                                                                                                    CACCATGTGCTTCGTCCCCCTGGTGTGTGTGTGTGTACCTGCCTCCAGCAGCT
                                                                                                                                                                                                                     1066 TTCCATATGCCAAATCCCGCTCCTCTGCTGGATCCTGTGTACCAGTCTGAAGCAAGAGAT
                                                                                                                                                                                                                                                                            GGAGGGTGGGGGGCTGTTGAGACAGACGTCCAGGACCACCACTGCAGTGTACATGCTCTA
                                                                                                                                                                                                                                                                                                                     GCAGAAAGGAAAAGACCTGGCCTGCCAGAGCACTACCTCTGTGTACTCCTCTTT
                                                                                                                                                                                                                                                                                                                                                                               CCTGCTGAGTCTGATGCAACCCAAG----CCGGGGCCCCCGCGCGCCTCCAGCCCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                   cercriraaccirioricacaccinaacereceaaceaccicaacricecaaaccaacaca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCAGAGAGAGGGTTGTGCTCCTTGGCGGCAGATGGGCTCTGGAATCAGAAAATCCTATTTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGAGCAGGACCTCCGGAAGCACGGCCTAGACGGGGAAGACGTCTCTGCCTTCCTCAACAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1306 TGAAGACGACCTCCGGAGAATGGGGTTGTTGACGCTGACATCCCTGCGCTGCTGGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAACATCTTCCAGAAGGACATCAACTGTGAGAGGTACTACAGCTTCATCCACTTGAGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1366 caagaractrordaagraceeegagcereaagaccrocracererrocrocrocrordary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1426 ccaccaccricicarcciccriciritaririscricaacaccaccricarcarccricacc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGACCAG-----GACGTGACCAGGCTGTTGACCGAGTACGCGTTTTCTGAAAGGAGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1486 AGCTGTGAGATGTGTACAGGAATTGCTAGTTGCCAATTTTGAAAAAGCAAGGAGGAGCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCTGGCACTCACCAGCCGCTTCCTGTTTGGACTCCTGAACGAGGAGCCAGGAGCCACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGAGAAGAGTCTCTGCTGGAAGGTCTCGCCGCACATCAAGATGGACCTGTTGCAGTGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGATGCGTTTTTTGGCTTCCAACTGTCCCAAGAGATAAAGCAGCAAATTCACCAGTGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1704 CCAAAGCAAAGCTCAGAGCGACGGCTCCACCCTGCAGCAGGGCTCCTTGGAGTTCTTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTGCTTGTACGAGATCCAGGAGGAGGAGTTTATCCAGCAGGCCCTGAGCCACTTCCAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               crercitricaaarecaeearecrecerritereaaecaeeeareaacerecrecaae-

    - AAGCTAACTTTCÁTATTATTGACAACGTGGACTTGGTGGTTTCTGCCTACTGCTTAAA

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCGCTGCAGGAGCGCCCAGGTGCTGCACTTGTATGGCGCCCACCTACAGCGCGGGACGGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGACCGCGCGCGAGGCGCACACGCACACGCTGTTGGTGCAGCTCAGACCAGAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  reaacacacercracercesarracascercarerresearcacareresererererere-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GACCGTTCTGCTGGACGCCTACAGTGAACATCTGGCAGCGGCCCTGTGCCACCAATCCAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -----CTCACCAGGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCTGATAGAGCTGTCTCTGTACCGAAATGCCCTGGGCAGCCGGGGGGGTGAAGCTGCTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                cercagadaderecaggideadadadadeacecercageagadadadadadeacecercagade
                                                               CCACAATGCAGAGCAGGCGGGCCAAGTCTTCAATTACGTGAGGGACAACGAGCCTCTCTT
                                                                                                                                                                    1113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1530
                                                                                                                1006
                                                                                                                                                                                                                                                                         1173
                                                                                                                                                                                                                                                                                                                              1126
                                                                                                                                                                                                                                                                                                                                                                               1233
                                                                                                                                                                                                                                                                                                                                                                                                                                   1186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1978
                                                               1053
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2064
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1666
                                                            ò
                                                                                                             윱
                                                                                                                                                            ઠે
                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                원
                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ∂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                            can be found
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Clone distribution: MGC clone distribution information can be fount through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov Series: IRAL Plate: 25 Row: k Column: 23
This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 19745161
This clone has the following problem: frame shifted.

Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         632
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             885
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              692
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      752
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              812
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             765
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 872
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         932
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCTCATCGCCATCAAACCCGTGTGCCCGAAGGAGCTCCGGGATCAGGTGACGATCTCAGA 945
Submitted (15-AUG-2001) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590, USA
NIH-MGC Project URL: http://mgc.nci.nih.gov
On Aug 19, 2003 this sequence version replaced gi:15215377.
Email: cgapba-r@mail.nih.gov
Tissue Procurement: ATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCTGCAGGCGCCCTTGAACGAACCCGATTCGGATCTGTGTGGTGACTTGATGGAGAAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCTCATCACCACGCCCACGCCTTTGGAGAAGCTCCACCGTCTGCTGGAGCACCCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCTCTTTGAGCCAGACGAGGAGCGCCCCGAGCCACCGCGCACCGTGGTCATGCAAGGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cceccititurgeteceaaceaacrecaaaacaceceaecraeacacraearratreaaceaece
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGCAGGGATAGGCAAGTCCATGCTGGCACACAAGGTGATGCTGGACTGGGCGGACGGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACAAGGAATTGGAAAAAAGGACACTCCTGATGAAGCTGATGATGGCCTGGTCGGACAACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCTCTTCCAAGGCAGATTTGATTATCTCTTCTACATCAACTGCAGGGAGATGAACCAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GATCTTTCGGGATAGGTTCCTGTACACGTTCTATTTCTGCTGCAGAGAACTGAGGGAG--

    rrecciccia acadentificació de reconencia de reconencia de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de reconecta de
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCTCAAGCCTTCTTTCCACGATCCTCAGGGACCCTGGTGCCTCTGCTGGGAGGAGAAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCCCACGCAGCTGCTTCTTAACAGCTTAATTCGGAAGAAGCTGCTCCCTGAGCTATCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGCCACGGAATGCAGCATGCAAGACCTCATCTTCAGCTGCTGGCCTGAGCCCAGCGCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCTCCAGGAGCTCATCCGAGTTCCCGAGCGCCTTCTTTCATCATCACGGCTTCGATGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                 contact: amadan@eystemsDiology.org
Anup Madan, Jessica Fahey, Erin Helton, Mark Ketteman, Anurac
Madan, Stephanie Rodrigues, Amy Sanchez and Michelle Whiting
                                                                                                                                                                                                                                         cDNA Library Preparation: Rubin Laboratory
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Institute for Systems Biology
http://www.systemsbiology.org
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 377; DB 3; Length 3360;
Pred. No. 9.9e-81;
0; Mismatches 1260; Indels 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    choriocarcinoma"

    .3360
    /organism="Homo sapiens"
    /mol_type="mRNA"
    /db_xref="taxon:9606"

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            tissue type="Placenta,
/clone_lib="NIH MGC_21"
/lab_host="DH10B-R"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /clone="IMAGE:3957172"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /note="Vector: pOTB7"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           12.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Simi
Matches 1269;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                513
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               933
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    693
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            753
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       873
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                986
     JOURNAL
                                                                                                          REMARK
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
```

ઠે

ò

ઠે

ò

ઠે

ò

ઠે

ઠે 쉽 ઠે

```
2784 AGACTGGGGCCTGTGGTTGCTGGCTGAGGGCTGCAACATCCCGCCTGCAGACTCCAGAA 2843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2904 GGGGATCAACCAGACCTTGACCGACCTTTACCTGACCAACAACGCCCTAGGGGACACAGG 2963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2964 TGTCCGACTGCTTTGCAAGCGGCTGAGCCATCCTGGCTGCAAACTCCGAGTCCTGGTT 3023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2872 GGTGGTTGTACTCTGTGAGGCCCTGAGACACCCAGAGTGTGCCCTGCAGGTGCTCGGGCT 2931
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3024 ATTITGGGAIGGACCIGAATAAAAIGACCCACAGAGAGTIGGCAGCGCTICGAGTAACAAA 3083
                              2098 TİCTGGCCAG---AĞTGTTCTGCTCTTTĞAGĞTGCİCTİTTATCAGCCAGACTTĞAAATA 2154
                                                                                                                                                       2303
                                                                                                                                                                                             2214
                                                                                                                                                                                                                                                                          2274
                                                                                                                                                                                                                                                                                                             2364 GGCTTGTCAGGAGATGGCTTCTGTGCTCGGCACCAACCCACATCTGGTTGAGTTGGACCT 2423
                                                                                                                                                                                                                                                                                                                                                   2334
                                                                                                                                                                                                                                                                                                                                                                                     2424 GACAGGAAATGCACTGGAGGATTTGGGCCTGAGGTTACTATGCCAGGGACTGAGGCACCC 2483
                                                                                                                                                                                                                                                                                                                                                                                                                              2391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2484 AGICIGCAGACTACGGACTITIGIGGCTGAAGAICIGCCGCCTCACTGCTGCTGCTGTGTGA 2543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2452 ATACATCTCTGAATGCTTCTGCGTAACAAGAGCGTGCGCTATCTAGACCTCAGTGCGAA 2511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGAGCTGGGGGACCTCGGGGTGCTGCTGTGTGAGGGCCTCCAGGCATCCCACGTGCAA 2663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2512 retrectigaaddaddaaddactigaaaactererdeedddeeerrgaaadareddaactiderg 2571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2664 GCTCCAGACCCTGCGGTTGGGCATCTGCCGGCTGTGCCGCCTGTGAGGGTCTTTC 2723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2631
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2724 TGTGGTGCTCCAGGCCAACCACAACCTCGGGAGCTGGACTTGAGTTTCAACGACCTGGG 2783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2632 CTCTGCTCTCATCAGCAATCAAAACCTGAAGATTCTGCAAAATTGGGTGCAATGAAATGGG 2691
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AdArgreddereridenderrigherereddereridaegedriaeddarrigedderriagadar 2751
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2844 ACTGTGGCTGGATAGCTGTGGCCTCACAGCCTTGTGAGAATCTTTACTTCACCCT 2903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2752 TCTTGGGTTGGAAGAATGTGGGTTAACGAGCACCTGCTGTAAGGATCTCGCGTCTGTTCT 2811
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2932 gagaaaakcrdarrirrgargaaakccckggcacrrcrdacggcrgaggaagaagaagaaa 2991
TCAAGGACTCAGACACCCCCAACTGCAAACTTCAGAACCTGAGGCTGAAGAGGTGCCGCAT 2183
                                                                                                                                                                                                                                    GCGGCATCCCCAGTGCAGGCTGCAGATGATTCAGTTGAGGAAGTGTCAGCTGGAGTCCGG 2363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2392 AGACACGGTCCTGGTATACCTGATGTTTGTGCCACCTCAGCGAGCAGCAGTGCTGCGA 2451
                                                                                                                                                                                                                                                                  2215 GAACTACCCAGCAGGCAACGTCAAAGAGCTAGCGCTGGTAAATTGTCACCTCTCACCCAT
                                                                            CTCCAGCTCAGCCTGCGAGGACCTCTCTGCAGCTCTCATAGCCAATAAGAATTTGACAAG
                                                                                                                                                     2244 GATGGATCTCAGTGGCAACGGCGTTGGATTCCCAGGCATGATGCTGCTTTGCGAGGGCCT
                                                                                                                                                                                           2155 ccridagerricacercacgaaacrerecergargacarcagrecereridadergeerr
                                                                                                                                                                                                                                                                                                                                               2275 rearrengaagreerrengeerrenaacaacaagaagaagagagararer
                                                                                                                                                                                                                                                                                                                                                                                                                            2335 ATCCTĠCAA----CCAGTTAGACACAGGGGTGCCCCTTTTGTGTGAAGCCCTGTGCAGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2544 CGAGCTGGCCTCAACTCTCAGTGTGAACCAGAGCCTGAGAGAGCTGGACCTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2572 ccrecarreacidrerriggraaarerrrareacrecidergeerdidaagaeereee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3084 ACCTTATTTGGACAT 3098
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2992 rccraaccraaccar 3006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2692
      2124
                                            2038
                                                                                  2184
                                                                                                                                                                                                                                        2304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Д
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                      d
                                                                                                                   a
                                                                                                                                                             à
                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                 ò
        ò
                                        엄
                                                                                ò
```

Search completed: February 8, 2005, 22:42:59 Job time : 8942 secs

```
Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         29-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    24-APR-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADE36417;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (REED/) F
(GODZ/) C
(CHUZ/) C
(PAWL/) F
(FIOR/) F
(ARIZ/) A
(STEH/) S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADE36417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Adj19339 Human PAN
Adp4722 Human Mon
Ads01559 Human PYR
Ado17857 Hyrin dom
Adj19383 Human PAN
Adj19383 Human PAN
Adj47726 Human Mon
Adp47728 Human Mon
Adp47730 Human Mon
Adp47730 Human Mon
Adj19399 Human PAN
Adj19379 Human PAN
Adj19379 Human PAN
Adj19379 Human PAN
Adj19379 Human PAN
Adj19379 Human PAN
Adj19379 Human PAN
Adj19379 Human PAN
Adj19379 Human PAN
Adj19379 Human PAN
Adj19379 Human PAN
Adj19379 Human PAN
Adj19379 Human PAN
Adj19379 Human PAN
Adj19379 Human PAN
Adj19379 Human PAN
Adj19379 Human PAN
Adj19379 Human PAN
Adj19313 Human PYR Human CAT
Adj19313 Human PYR Human PYR Abu06563 Human PYR Abu06563 Human PYR Abu06563 Human PYR Abu06563 Human PYR Abu06563 Human PYR Abu06563 Human PYR Abu06563 Human PYR Abu06563 Human PYR Abu06563 Human PYR Abu06563 Human PYR Abu06563 Human PYR Abu065631 Human PYR Abu065631 Human PYR Abu06563 Human PYR Abu065631 Human PYR Abu065631 Human PYR Abu065631 Human PYR Abu065631 Human PYR Abu065631 Human PYR Abu065631 Human PYR Abu0636315 Human PYR Abu0636315 Human PYR Abu0636315 Human PYR Abu0636315 Human PYR Abu0636315 Human PYR Abu0636315 Human PYR Abu0636315 Human PYR Abu0636315 Human PYR Abu0636315 Human PYR Abu0636315 Human PYR Abu0636315 Human PYR Abu0636315 Human PYR Abu0636315 Human PYR Abu0636315 Human PYR Abu0636315 Human PYR Abu0636315 Human PYR Abu0636315 Human PYR Abu0636315 Human PYR Abu0636315 Human PYR Abu0636315 Human PYR Abu0636315 Human PYR Abu0636315 Human PYR Abu0636315 Human PYR Abu0636315 Human PYR Abu0636315 Human PYR Abu0636315 Human PYR Abu0636315 Human PYR Abu0636315 Human PYR Abu0636315 Human PYR Abu0636315 Human PYR Abu0636315 Human PYR Abu0636315 Human PYR Abu0636315 Human PYR Abu0636315 Human PYR Abu0636315 Human PYR Abu0636315 Human PYR Abu0636315 Human PYR Abu0636315 Human PYR Abu0636315 Human PYR Abu0636315 Human PYR Abu0636315 Human PYR Abu0636315 Human PYR Abu0636315 Human PYR Abu0636315 Human PYR Abu0636315 Human PYR Abu0636315 Human PYR Abu0636315 Human PYR Abu0636315 Human PYR Abu0636315 Human PYR Abu063631 Human PYR Abu0636315 Human PYR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human PAA
Human PAN
Human PYR
Human PYR
Pyrin dom
Human PAN
Human PAN
Human pro
Human pro
Human Mon
Human Mon
Human Mon
Human Mon
Human Mon
                                                                                                                                                                          February 8, 2005, 14:41:04; Search time 173 Seconds (without alignments) 2313.855 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                  5472
1 MLRTAGRDGLCRLSTYLEEL.....MTHSRLAALRVTKPYLDIGC 1035
GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2105692 segs, 386760381 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADJ19339
ADP4724
ADP47724
ADP9383
ADJ19383
ADJ19383
ADP47728
ADP47728
ADP47730
ADP47730
ADP47730
ADP47730
ADP47730
ADP47730
ADP47730
ADP47730
ADP47730
ADP47730
ADP47730
ADP47730
ADP47730
ADP47730
ADP47730
ADP47730
ADP47730
ADP47730
ADP47730
ADP47730
ADP47730
ADP47730
ADP47730
ADP47730
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             geneseqp2003as:*
geneseqp2003bs:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A_Geneseq_16Dec04:*
i: geneseqp1980s:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  geneseqp1990s:*
geneseqp2000s:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               geneseqp2001s:*
geneseqp2002s:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          geneseqp2004s:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                     US-10-781-294-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1034
1034
1034
                                                                                                                                                                                                                                                                                                                                                                                                                               BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query
Match 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1000.0
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
999.3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5472

548472

548472

548433

55833

55833

54433

54433

54433

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

64452

                                                                                                                                                                                                                                                                                                                                        Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                            Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score
                                                                                                                                                                                                                                                                                                                                                                     Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Database
                                                                                                                                                                                 Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            So.
```

Adj19397 Murine PA	ADJ19397	2	61	29.8	1631.5	42
Aae21062 rno (upre	AAE21062	5	34	30.2	1652	44
Adj19374 Human PAN	ADJ19374	8	71	30.5	1653.5	43
Human	ADE36452		71	30.2	1653.5	42
Adp47736 Human inf	ADP47736	2	93	30.7	1682.5	41
Human	ADJ19425	_	32	31.6	1731	40
Human	ADJ19398	_	67	32.0	1749	39
Human	ADP47754	7 8	71	32.3	1766.5	38
Human	ADP47734	2	101	32.6	1785.5	37
Adm34360 Human mut	ADM34360	0	92	40.0	. 2189	36
Human	ADP47870	7 8	97	41.2	2253.5	32
Adp47756 Human CAT	ADP47756	4 8	94	41.3	2258	34
Abb77910 Amino aci	ABB77910		44	42.7	2334	33
Human	ADM34354	4 7	103	43.7	2389	32
Adm34352 Human mut	ADM34352	4 7	103	43.7	2392	31
Adm34355 Human mut	ADM34355	4 7	103	43.7	2392	30
Adm34353 Human mut	ADM34353	4 7	103	43.7	2392	53
	ADM34351	4 7	103	43.8	2395	28
Adp24014 PRO polyp	ADP24014	4 8	1034	43.8	2396	27
Adm34319 Human cry	ADM34319	4	103	43.8	2396	56

ALIGNMENTS

us-10-781-294-24.rag

```
WPI; 2004-061677/06.
N-PSDB; ADJ19338.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Reed JC, Godzik A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (REED/) REED J C. (GODZ/) GODZIK A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US2004002593-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-JAN-2004.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20-MAY-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADJ19339;
                                                                                                                                                                                                                                                                                                                                                        841
                                                             481
                                                                                                                                                                                                                       661
                                                                                                                                                                                                                                                                          721
                                                                                                                                                                                                                                                                                                    781
                                                                                                                                                                                                                                                                                                                             781
                                                                                       541
                                                                                                                                         601
                                                                                                                                                                   601
                                                                                                                                                                                                                                                721
                                  481
                                                                                                                                                                                              661
         421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADJ19339
ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         유
                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                        요
                                                                                       ò
                                                                                                            g
                                                                                                                                     જે
                                                                                                                                                                  d
                                                                                                                                                                                              ð
                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                    ò
                              ठे
                                                                                                                                                 The invention describes an isolated PAAD domain containing polypeptide

(I) comprising 80% identity to the amino acid sequence of PAAD and

(I) comprising 80% identity to the amino acid sequence of PAAD and

charles protein containing a caspase recruitment domain (ASC)-2 fully

charles protein containing a caspase recruitment domain (ASC)-2 fully

defined in specification, where (I) is biologically active. (I) is useful

for identifying a (I)-associated polypeptide, an agent altering that

association and agents that modulate PAAD domain mediated inhibtion of

nuclear factor kappa B (WRKappaB). A NB-ARC domain polypeptide is useful

conclear factor kappa B (WRKappaB). A NB-ARC domain polypeptide is useful

conclear factor kappa B (WRKappaB). A NB-ARC domain polypeptide is useful

conclearing on agent that modulates the activity of the NB-ARC domain

conclemical process such as apoptosis, NFKappaB induction, cytokine

conclemical process such as apoptosis, NFKappaB induction, cytokine

conclusion of the concentration, thus having modulating effect on cell

conclusion processes. (I) is useful for treating cancer pathologies,

conclusion processes. (I) is useful for treating cancer pathologies,

conclusion, in arteries following balloon andioplasty (restencis),

conclusion, in arteries following balloon andioplasty (restencisis),

conclusion, in arteries following balloon andioplasty (restencisis),

conclusion in arteries following balloon andioplasty (restencisis),

conclusion which are failure, neurodegenerative colitis,

conclusion as parkinson's and Alzheiner's disease and ulcerative colitis,

conclusion (HIV). (I) is useful for diagnosing cancer or monitoring cancer

conclusion conclusion and sequence of a human pAAD and mucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAPRLQPPPNQRGLCSLAADGLWNQKILFEEQDLRKHGLDGEDVSAFLNMNIFQKDINCE 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ITHEGPEEAWRLALSTFERINRKDLWERGQREDLVRDPQETYRDYVRRKFRLMEDRNARL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241 IFSCWPEPSAPLQELIRVPERLIFIIDGFDELKPSFHDPQGPWCLCWEEKRPTELLINSL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TRKKLLPELSLLITTRPTALEKLHRLLEHPRHVEILGFSEAERKEYFYKYFHNAEQAGQV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 MLRTAGRDGLCRLSTYLEELEAVELKKFKLYLGTATELGEGKIPWGSMEKAGPLEMAQLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 MIRTAGRIGGICRISTYLEBIBAVBLKKFKLYLGTATBLGBGKIPWGSMEKAGPLEMAQLI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GECVNLSHRYTRLLLLVKEHSNPMQVQQLLDTGRGHARTVGHQASPIKIETLFEPDEERP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FNYVRDNEPLFTMCFVPLVCWVVCTCLQQQLEGGGLLRQTSRTTTAVYMLYLLSLMQPKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EPPRIVVMQGAAGIGKSMLAHKVMLDWADGKLFQGRFDYLFYINCREMNQSATECSMQDL
                                                                          Novel isolated PAAD domain containing polypeptide useful for inducing apoptosis by inhibiting nuclear factor kappa B activation and in gene therapy for treating cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
Æ;
 Ariza
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 1035;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Indels
 Fiorentino L,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%; Score 5472;
100.0%; Pred. No. 0;
iive 0; Mismatches
 Pawlowski K,
                                                                                                                                   claim 18; SEQ ID NO 24; 93pp; English.
  Chu Z,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity 100.
Matches 1035; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 protein PAN6.
                                           WPI: 2002-471256/50.
    Godzik A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 1035 AA;
                                                       N-PSDB; ADE36416.
    Reed JC, G
Stehlik C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
```

```
780
                                                                                                                                                                                                                                                                                    780
                                                                                                                                                                                                                                                                                                               840
                                                                                                                                                                                                                                                                                                                                        840
                                                                                                                                                                                                                                                                                                                                                                  900
                                                                                                                                                                                                                                                                                                                                                                                           900
                                                                                                                                                                                                                                                                                                                                                                                                                      960
                                                                                              009
                                                                                                                       900
                                                                                                                                                  99
                                                                                                                                                                             999
                                                                                                                                                                                                       720
                                                                                                                                                                                                                                720
RKCOLESGACQEMASVIGTNPHIVELDLTGNALEDIGIRLLCQGLRHPVCRLRTLWLKIC
                                                                                                                                                                                                                                                                                                                             RLTAAACDBLASTLSVNQSLRELDLSLNELGDLGVLLLCEGLRHPTCKLQTLRLGICRLG
                                                                                                                                                                                                                                                                                                                                                                                    901 SAACEGLSVVLQANHNIRELDISFNDLGDWGLWILAEGLQHPACRLQKLWLDSCGLTAKA
                                                                                                                                                                                                                                                                                                                                                                                                                                       NEETRSHLEKSLCWKVSPHIKMDLLQWIQSKAQSDGSTLQQGSLEFFSCLYELQEEFIQ
                                                                                                                     541 NEETRSHLEKSLCWKVSPHIKMDLLQWIQSKAQSDGSTLQQGSLEFFSCLYBIQEEFFIQ
                                                                                                                                                                                                                                                                             QALSHFQVIVVSNIASKMEHMVSSFCLKRCRSAQVLHLYGATYSADGEDRARCSAGAHTL
                                                                                                                                                                LVQLRPERTVLLDAYSEHLAAALCTNPNLIELSLYRNALGSRGVKLLCQGLRHPNCKLQN
                                                                                                                                                                                                                                                         IRLKRCRISSSACEDLSAALIANKNLTRMDLSGNGVGFPGMMLLCEGLRHPQCRLQMIQL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PAAD; cytostatic; cancer; gene therapy; PAAD domain; human; PAN6.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human PAN6 PAAD domain-containing full-length protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADJ19339 standard; protein; 1035 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LAALRVIKPYLDIGC 1035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LAALRVTKPYLDIGC 1035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       04-APR-2002; 2002US-0370538P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 04-APR-2003; 2003US-00407866.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
```

```
Claim 18; SEQ ID NO 2; 205pp; English.
                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Harton JA,
                                                                                                                                                                                                                                                            ADP47724 standard; protein; 1062
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Brickey J,
                                                                                                                                                                                                   1035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  30-APR-2002; 2002US-0376626P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           30-APR-2003; 2003WO-US013562.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (UYNC-) UNIV NORTH CAROLINA.
                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                           LAALRVTKPYLDIGC
                                                                                                                                                                                         1021 LAALRVTKPYLDIGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Linhoff MW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Davis B,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2004-348215/32.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              N-PSDB; ADP47723
                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO2004034093-A2.
                                                                                                                                                                                                                                                                                                          12-AUG-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    22-APR-2004.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ting JY,
Moore CB,
                                                                                                                                                                                                                                                                                   ADP47724;
                                                                                                                                                                           1021
                                                          841
                                    841
                                                                                 901
                                                                                                                              961
                                                                                                       901
                                                                                                                                                                                                                                                                                                                                                                                                                                        Ношо
                                                                                                                                                                                                                                     RESULT 3
                                                         유
                                                                                                      요
                                                                                                                                                   셤
                                                                                                                                                                                                                                                                       ò
                                                                              ઠે
                                                                                                                              ઠે
                                                                                                                                                                           ઠ
                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                  120
                                                                                                                                                                                                                                                                                                         120
                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                                                                           300
                                                                                                                                                                                                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RKCQLESGACQEMASVLGTNPHLVELDLTGNALEDLGLRLLCQGLRHPVCRLRTLWLKIC 840
                                                               The invention relates to a novel isolated nucleic acid molecule encoding a PAAD-containing polypeptide. The polypeptide of the invention demonstrates cytostatic activity and may be useful for preparing a composition for diagnosing or treating diseases associated with the PAAD domain-containing polypeptide, such as cancer, via gene therapy. The current sequence is that of the human PAAD domain-containing full-length protein of the invention.
                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                           9
             useful
                                                                                                                                                                                                                                                  MLRTAGRDGLCRLSTYLEELEAVELKKFKLYLGTATELGEGKI PWGSMEKAGPLEMAQLL
                                                                                                                                                                                                                                                                                               ITHFGPEEAWRLALSTFERINRKDLWERGQREDLVRDPQETYRDYVRRKFRLMEDRNARL
                                                                                                                                                                                                                                                                                                                                                                                                                                        241 IFSCWPEPSAPLOELIRVPERLLFIIDGFDELKPSFHDPQGPWCLCWEEKRPTELLINSL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NEBTRSHLEKSLCWKVSPHIKMDLLQWIQSKAQSDGSTLQQGSLEFFSCLYEIQEBFIQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LVQLRPERTVLLDAYSEHLAAALCTNPNLIELSLYRNALGSRGVKLLCQGLRHPNCKLQN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ITHFGPEEAWRLALSTFERINRKDLWERGQREDLVRDPQETYRDYVRRKFRLMEDRNARL
                                                                                                                                                                                                                                                                                                                               GECVNLSHRYTRLLLUVKEHSNPMQVQQLLDTGRGHARTVGHQASPIKIETLFEPDEERP
                                                                                                                                                                                                                                                                                                                                              GECVNLSHRYTRLILLVKEHSNPMQVQQQLLDTGRGHARTVGHQASPIKIETLFEPDEERP
                                                                                                                                                                                                                                                                                                                                                                                          301 IRKKLLPELSLLITTRPTALEKLHRLLEHPRHVEILGFSBAERKEYFYKYFHNAEQAGQV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FNYVRDNEPLFTMCFVPLVCWVVCTCLQQQLEGGGLLRQTSRTTTAVYMLYLLSLMQPKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAPRLQPPPNQRGLCSLAADGLMNQXILFEEQDLRKHGLDGEDVSAFLNMNIFQKDINCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NEETRSHLEKSLCWKVSPHIKMDLLQWIQSKAQSDGSTLQQGSLEFFSCLYEIQEEFFIQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QALSHFQVI VVSNI ASKMEHMVSSFCLKRCRSAQVLHLYGATYSADGEDRARCSAGAHTL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QALSHFQVIVVSNIASKMEHMVSSFCLKRCRSAQVLHLYGATYSADGEDRARCSAGAHTL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LVQLRPERTVLLDAYSEHLAAALCTNPNLIELSLYRNALGSRGVKLLCQGLRHPNCKLQN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LRLKRCRISSSACEDLSAALIANKNLTRMDLSGNGVGFPGMMLLCEGLRHPQCRLQMIQL
                                                                                                                                                                                                                                     MLRTAGRDGLCRLSTYLEELEAVELKKFKLYLGTATELGEGKI PWGSMEKAGPLEMAQLL
                                                                                                                                                                                                                                                                                                                                                                             EPPRTVVMQGAAGIGKSMLAHKVMLDWADGKLFQGRFDYLFYINCREMNQSATECSMQDL
                                                                                                                                                                                                                                                                                                                                                                                                                           IFSCWPEPSAPLQELIRVPERLLFIIDGFDELKPSFHDPQGPWCLCWEEKRPTELLLNSL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IRKKLLPELSLLITTRPTALEKLHRLLEHPRHVEILGFSEAERKEYFYKYFHNAEQAGOV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FNYVRDNEPLFTMCFVPLVCWVVCTCLQQQLEGGGLLRQTSRTTTAVYMLYLLSLMQPKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAPRLOPPPNORGLCSLAADGLWNOKILFEEODLRKHGLDGEDVSAFLNMNIFOKDINCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RYYSFIHLSFQEFFAAMYYILDEGEGGAGPDQDVTRLLTEYAFSERSFLALTSRFLFGLL
                                                                                                                                                                                                              Gaps
                        e.g., cancer.
            nucleic acid molecule encoding a PAAD-containing polypeptide, preparing a composition for diagnosing or treating e.g., cance
                                                                                                                                                                                                              ö
                                                                                                                                                                                     Length 1035;
                                                                                                                                                                                                              Indels
                                                                                                                                                                                      8;
                                                                                                                                                                                                              ö
                                                                                                                                                                                        8
                                                                                                                                                                                     Query Match 100.0%; Score 5472; Best Local Similarity 100.0%; Pred. No. 0; Matches 1035; Conservative 0; Mismatches
                                             SEQ ID NO 24; 193pp; English
                                                                                                                                                                Sequence 1035 AA;
                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       781
                                              Example;
                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   421
 엄
                                                                                                                                                                                                                                                                                                                                                                                                                                               유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                     엄
                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠ
```

1020 1020 840 The invention relates to a novel isolated nucleic acid encoding a Monarch enhancer, R(parine)-binding, pyrin, lots of leucine repeats) i. CATERPILLER 11.3, CATERPILLER 11.3, CATERPILLER 16.1 or CIASI (coldinduced autoinflammatory syndrome 1) polypeptide comprising the amino acide encoded by exon 6 and lacking the amino acide encoded by exon 6 and lacking the amino acide encoded by exon 6 and lacking the invention demonstrates or its fragment. The nucleic acid of the invention demonstrates and cytostatic acid of the invention demonstrates a composition for treating an inflammatory disease or cancer, possibly via gene therapy. The current sequence is that of the human Monarch-1 (CATERPILLER 19.3) full-length protein of the invention which is encoded by DNA located on chromosome 19q13, in the multiple sclerosis 900 960 960 CATERPILLER 11.3, Monarch-1; CATERPILLER 11.2; caspase recruitment domain; CARD, transcription enhancer, R-binding, pyrin, lots of leucine repeat; CATERPILLER 11.3; CATERPILLER 16.1; CATERPILLER 16.2; CIAS1; cold-induced autoinflammatory syndrome 1; antiinflammatory; cytostatic; inflammatory disease; cancer; gene therapy; human; purine; CATERPILLER 19.3; chromosome 19q13; multiple sclerosis. 961 CENLYFTLGINQTLTDLYLTNNALGDTGVRLLCKRLSHPGCKLRVLWLFGMDLNKMTHSR RLTAAACDELASTLSVNQSLRELDLSLNELGDLGVLLLCEGLRHPTCKLQTLRLGICRLG SAACEGLSVVLQANHNLRELDLSFNDLGDWGLWLLAEGLQHPACRLQKLWLDSCGLTAKA SAACEGLSVVLQANHNLRELDLSFNDLGDWGLWLLAEGLQHPACRLQKLWLDSCGLTAKA CENLYFILGINQTLTDLYLTNNALGDTGVRLLCKRLSHPGCKLRVLWLFGMDLNKMTHSR Lich J, O'connor.W; J, Zhu X; New nucleic acid encoding Monarch-1, CATERPILLER 11.2, CATERPILLER 1 CATERPILLAR 16.1, CATERPILLER 16.2 or CIAS1 polypeptide, useful in preparing a composition for treating inflammatory disease or cancer. Human Monarch-1 (CATERPILLER 19.3) full-length protein. Williams KL, onti B, Zhang Conti B,

SXS

엄

ð

ద

ò

유

ò

```
AAO15590;
                994
                               1021
   961
                                                            AA015590
                                                     RESULT
                                                                  유
                à
                              g
                                                                                                                                                                                                                                                                                                                                                                                                                   780
                                                                                                                                                                                                                                                                                                                                                                                                                                 813
                                                                                                                                                                                                                                                                                                                                                                                                                                               840
                                                                                                                                                                                                                                                                                                                                                                                                                                                              873
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          933
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     934 LLAEGLQHPACRLQKIMLDSCGLTAKACENLYFTLGINQTLTDLYLTNNALGDTGVRLLC 993
                                                                                                                                                                                                                                                                                                                                                                                       720
                                                                                                                                                                                                                                                                                                                                                                                                     753
                                                                                                                                                                                                                                                                                                    540
                                                                                                                                                                                                                                                                                                                 573
                                                                                                                                                                                                                                                                                                                               900
                                                                                                                                                                                                                                                                                                                                              633
                                                                                                                                                                                                                                                                                                                                                           099
                                                                                                                                                                                                                                                                                                                                                                          693
                                                                                                                                                                                                                                                                  513
                                                                                                120
                                                                                                              153
                                                                                                                           180
                                                                                                                                          213
                                                                                                                                                                                   300
                                                                                                                                                                                                  333
                                                                                                                                                                                                               360
                                                                                                                                                                                                                             393
                                                                                                                                                                                                                                            420
                                                                                                                                                                                                                                                          453
                                                                   9
                                                                                 96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VTRLLTEYAFSERSFLALTSRFLFGLLNEETRSHLEKSLCWKVSPHIKMDLLQWIQSKAQ
                                                                                                                                                                                                                                                                                                                          574 SDGSTLQQGSLEFFSCLYEIQEEEFIQQALSHFQVIVVSNIASKWEHMVSSFCLKRCRSA
                                                                                                                                                                                                                                                                                                                                                     SDGSTLQQGSLEFFSCLYEIQEBEFIQQALSHFQVIVVSNIASKWEHWVSSFCLKRCRSA
                                                                                                                                                                                                                                                                                                                                                                                   LYRNALGSRGVKLLCQGLRHPNCKLQNLRLKRCRISSSACEDLSAALIANKNLTRMDLSG
                                                                                                                                                                                                                                                                                                                                                                                                                  LYRNALGSRGVKLLCQGLRHPNCKLQNLRLKRCRISSSACEDLSAALIANKNLTRMDLSG
                                                                                                                                                                                                                                                                                                                                                                                                                                  NGVGFPGMMLLCEGLRHPQCRLQMIQLRKCQLESGACQEMASVLGTNPHLVELDLTGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                         EDLGLRLLCQGLRHPVCRLRTLWLKICRLTAAACDELASTLSVNQSLRELDLSLNELGDL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GVLLLCEGLRHPTCKLQTLRLGICRLGSAACEGLSVVLQANHNLRELDLSFNDLGDWGLW
                                                                                                                                                                                                                                     QVLHLYGATYSADGEDRARCSAGAHTLLVQLRPERTVLLDAYSEHLAAALCTNPNLIELS
                                                                                           RGHARTVGHQASPIKIETLFEPDEERPEPPRTVVMQGAAGIGKSMLAHKVMLDWADGKLF
                                                                                                                                                  QGRFDYLFYINCREMNQSATECSMQDLIFSCWPEPSAPLQELIRVPERLLFIIDGFDELK
                                                                                                                                                                              PSFHDPQGPWCLCWEEKRPTELLLNSLIRKKLLPELSLLITTRPTALEKLHRLLEHPRHV
                                                                                                                                                                                                         BILGFSEABRKEYFYKYPHNAEQAGOVFNYVRDNEPLFTMCFVPLVCWVVCTCLQQQQLEG
                                                                                                                                                                                                                                                         GGLLRQTSRTTTAVYMLYLLSLMQPKPGAPRLQPPPNQRGLCSLAADGLWNQKILFEEQD
                                                                                                                                                                                                                                                                                      LRKHGLDGEDVSAFLNMNIFQKDINCERYYSFIHLSFQEFFAAMYYILDEGEGGAGPDQD
                                                             ---DPQETYRDYVRRKFRLMEDRNARLGECVNLSHRYTRLLLLVKEHSNPMQVQQQLLDTG
                                                     MLRTAGRDGLCRLSTYLEELEAVELKKFKLYLGTATELGEGKI PWGSMEKAGPLEMAQLL
                          DB 8; Length 1062;
                                        Indels
                                        ö
                                                                                  ITHFGPEEAWRLALSTFERINRKDLWERGOREDLVR-
                         Score 5448.5;
Pred. No. 0;
                                        Mismatches
                                        ;
0
                         99.6%;
ilarity 97.5%;
Conservative
susceptibility region.
                           Query Match
Best Local Similarity
Matches 1035; Conser
             Sequence 1062 AA;
                                                                                                                                                                                                                                                                                                                                                                                          661
                                                                                                                                                                                                                                                                                                                                                              601
                                                                                                                                                                                                                                                                                                                                                                           634
                                                                                                                                                                                                                                                                                                                                                                                                        694
                                                                                                                                                                                                                                                                                                                                                                                                                      721
                                                                                                                                                                                                                                                                                                                                                                                                                                    754
                                                                                                                                                                                                                                                                                                                                                                                                                                                  781
                                                                                                                                                                                                                                                                                                                                                                                                                                                               814
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            874
                                                                                                                             121
                                                                                                                                                                                     241
                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                334
                                                                                                                                                                                                                                                                                        454
                                                                                                                                            154
                                                                                                                                                          181
                                                                                                                                                                        214
                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                            394
                                                                                                                                                                                                                                                                         421
                                                                                    19
                                                                                                 61
                                                                                                                97
                                                                                                                                                                                                   274
                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                   임
                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                셤
                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                ઠે
                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                           ò
                                                                                                                                                          셤
                                                                                                                                                                        ð
                                                                                                                                                                                   q
                                                                                                                                                                                                   ò
```

```
The invention comprises the amino acid and coding sequences of human PYRIN proteins. The PYRIN protein and DNA sequences of the invention are useful for modulating and diagnosing stress-related, apoptoppic and confine the inflammatory responses. The PYRIN protein and DNA sequences are useful for treating: inflammatory disorders and immune system disorders (e.g. crohn's disease, reactive arthritis, multiple sclerosis, contact carnitis, psoriasis, graft rejection, allergies, viral infections and bacterial infections; cancer (e.g. leukaemia); autoimmune disorders (e.g. systemic lupus erythematosus and arthritis); and neurological diseases (e.g. Alzheimer's disease and Parkinson's disease). The PYRIN protein and DNA sequences may also be used in screening assays, detection assays (e.g. chromosomal mapping, tissue typing or forensic biology), predictive medicine (e.g. diagnostic assays, clinical trials and pharmacogenomics) and transcription profiling. The present amino acid sequence represents a human PYRIN-8 protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 7
Human; gene therapy; PYRIN; stress-related response; apoptopic response; inflammatory response; inflammatory disorder; immune system disorder; Crohn's disease; multiple sclerosis; cancer; leukaemia; autoimmune disorder; arthritis; neurological disease; Alzheimer's disease; Parkinson's disease; chromosomal mapping; tissue typing; forensic blology; predictive medicine; pharmacogenomics; transcription profiling; PYRIN-8.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New PYRIN polypeptides and nucleic acids useful for modulating and diagnosing stress-related, apoptopic and inflammatory responses, or treating inflammatory and immune system disorders, cancers, or neurological diseases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 28;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 1061;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                               KRLSHBGCKLRVIWLFGWDLNKWTHSRLAALRVTKPYLDIGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99.3%; Score 5433; DB 5;
ilarity 97.4%; Pred. No. 0;
Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                               Æ
                                                                                                                                                                                                                                                                                                                                  AA015590 standard; protein; 1061
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 8; Fig 8; 167pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Blatcher M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       31-JAN-2001; 2001US-0265231P.
10-SEP-2001; 2001US-0318645P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        31-JAN-2002; 2002WO-US002967.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MILLENNIUM PHARM INC WYETH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human PYRIN-8 protein #2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
Matches 1034; Conservat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2002-627477/67.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 1061 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               N-PSDB; AAL44363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Wang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO200261049-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         31-OCT-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             08-AUG-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Bertin J,
```

\$

ADF94755 standard; protein; 1061

entry)

(first

셤

ď

ò

8 6 8 6 8 6 8 6 8 6 8

ò

```
RESULT 5
ADF94755
                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        염
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1019
                                                                                                                                               240
                                                                                                                                                                                                                                   360
                                                                                                                                                                                                                                                                                                                                                                540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      993
                                                            120
                                                                                                      180
                                                                                                                            213
                                                                                                                                                                     273
                                                                                                                                                                                         300
                                                                                                                                                                                                              333
                                                                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                                                      480
                                                                                                                                                                                                                                                                                                                                                                                     573
                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             933
                                                                                  153
                                                                                                                                                                                                                                                        393
                                                                                                                                                                                                                                                                                                 453
                                                                                                                                                                                                                                                                                                                                           513
                                                                                                                                                                                                                                                                                                                                                                                                        900
                                                                                                                                                                                                                                                                                                                                                                                                                             633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       693
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 753
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   873
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               839
 9
                   9
                                          96
                                                     MLRTAGRDGLCRLSTYLEELEAVELKKFKLYLGTATELGEGKIPWGSMEKAGPLEMQLL
                                                                                             PRKDPQETYRDYVRRKFFLIMEDRNARLGECVNLSHRYTRLLLLVKEHSNPMQVQQQLLDTG
                                                                                                                                       RGHARTVGHQASPIKIETLFEPDEERPEPPRTVVMQGAAGIGKSMLAHKVMLDWADGKLF
                                                                                                                                                                                PSFHDPQGPWCLCWEEKRPTELLLNSLIRKKLLPELSLLITTRPTALEKLHRLLEHPRHV
                                                                                                                                                                                                                                                                   GGLLRQTSRTTTAVYMLYLLSLMQPKPGAPRLQPPPNQRGLCSLAADGLWNQXILFERQD
                                                                                                                                                                                                                                                                                                                                          LRKHGLDGEDVSAFLNMNI FQKDINCERYYSFIHLSFQEFFAAMYYILDEGEGGAGPDQD
                                                                                                                                                                                                                                                                                                                                                                                  VTRLLTEYAFSERSFLALTSRFLFGLLNEETEGHLEKSLCWKVSPHIKMDLLQWIQSKAQ
                                                                                                                                                                                                                                                                                                                                                                                                                                         SDGSTLQQGSLEFFSCLYEIQEEEFIQQALSHFQVIVVSNIASKMEHMVSSFCLKRCRSA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EDLGLRLLCQGLRHPVCRLRTLWLKICRLTAAACDELASTLSVNQSLRBLDLSLNELGDL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LLAEGLQHPACRLQKLWLDSCGLTAKACENLYFTLGINQTLTDLYLTNNALGDTGVRLLC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LLAEGLÓHPACRLOKLWLDSCGLTAKACENLYFTLGINOTLTDLYLTNNALGDTGVRLLC
                                                                                 ---DPQETYRDYVRKKFRLMEDRNARLGECVNLSHRYTRLLLVKEHSNPMQVQQQLLDTG
                                                                                                                           RGHARTVGHQASPIKIETLFEPDEERPEPPRTVVMQGAAGIGKSMLAHKVMLDWADGKLF
                                                                                                                                                                    QGRFDYLPYINCREMNQSATECSMQDLIFSCWPEPSAPLQELIRVPERLLFIIDGFDELK
                                                                                                                                                                                                                          PSFHDPQGPWCLCWEEKRPTELLLNSLIRKKLLPELSLLITTRPTALEKLHRLLEHPRHV
                                                                                                                                                                                                                                                        BILGFSEAERKEYFYKYFHNAEQAGQVFNYVRDNEPLFTMCFVPLVCWVVCTCLQQQLEG
                                                                                                                                                                                                                                                                                                              VIRLITEYAFSERSFLALTSRFLFGLLNEETRSHLEKSLCWKVSPHIKMDLLQWIQSKAQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      QVLHLYGATYSADGEDRARCSAGAHTLLVQLRPERTVLLDAYSEHLAAALCTNPNLIELS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  QVLHLYGATYSADGEDRARCSAGAHTLLVQL-PERTVLLDAYSEHLAAALCTNPNLIELS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LYRNALGSRCVKLLCQGLRHPNCKLQNLRLKRCRISSSACEDLSAALIANKNLTRMDLSG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NGVGFPGMMLLCEGLRHPQCRLQMIQLRKCQLESGACQEMASVLGTNPHLVELDLTGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NGVGFPGMMLLCEGLRHPQCRLQMIQLRKCQLESGACQEMASVLGTNPHLVELDLTGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EDLGLRLLCQGLRHPVCRLRTLWLKICRLTAAACDELASTLSVNQSLRELDLSLNELGDL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GVLLLCEGLRHPTCKLQTLRLGICRLGSAACEGLSVVLQANHNLRELDLSFNDLGDWGLW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GVLLLCEGLRHPTCKLQTLRLGICRLGSAACEGLSVVLQANHNLRELDLSFNDLGDWGLW
                                                                                                                                                                                                                                                                                                                                                                                                                             SDGSTLOQGSLEFFSCLYEIQEBEFIQQALSHFQVIVVSNIASKMEHMVSSFCLKRCRSA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KRLSHPGCKLRVLWLFGMDLNKMTHSRLAALRVTKPYLDIGC 1035
                                        ITHFGPEBAWRLALSTFERINRKDLWERGQREDLVR-----
                                       61
                                                                                 97
                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  814
                                                                                                                          154
                                                                                                                                               181
                                                                                                                                                                    214
                                                                                                                                                                                         241
                                                                                                                                                                                                             274
                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                        334
                                                                                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                                                                394
                                                                                                                                                                                                                                                                                                                      421
                                                                                                                                                                                                                                                                                                                                           454
                                                                                                                                                                                                                                                                                                                                                                                    514
                                                                                                                                                                                                                                                                                                                                                                                                        541
                                                                                                                                                                                                                                                                                                                                                                                                                            574
                                                                                                                                                                                                                                                                                                                                                                                                                                                  601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          754
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      934
                                                                                                                                                                                                                                                                                                                                                              481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                994
```

ġ

g

δ

g

ઠે

a

6 B 6

ઠે

셤

셤

δ

셤

ઠે

ò

යි යි

ઠે

```
The invention comprises the amino acid and coding sequences of human PYRIN proteins. The DNA and protein sequences of the invention are useful in diagnosing, preventing and treating inflammatory disorders or disorders associated with inappropriate apoptosis, such as: inflammatory bowel disease, rheumatoid arthritis, diabetes, multiple sclerosis, Grave's disease, contact dermatitis, psoriasis, graft rejection, asthma, allergy, chronic obstructive pulmonary disease, glomerulonephritis, infections, Alzheimer's disease, Parkinson's disease, anaemia and ischaemia. The DNA and protein sequences of the invention may also be used in screening assays, chromosomal mapping, tissue typing, forensic biology, pharmacogenomics, predictive medicine, and in monitoring of clinical trials. The present amino acid sequence represents a PYRIN protein of the invention.
                                                            human; PYRIN; inflammatory disorder; inappropriate apoptosis; inflammatory bowel disease; rheumatoid arthritis; diabetes; multiple sclerosis; Grave's disease; contact dermatitis; psoriasis; graft rejection; asthma; allergy; chronic obstructive pulmonary disease; glomerulonephritis; infection; Alzheimer's disease; Parkinson's disease; anaemia; ischaemia; screening; chromosomal mapping; tissue typing; forensic biology; pharmacogenomics; predictive medicine.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New nucleic acid molecules and polypeptides (e.g. PYRIN-2 or PYRIN-3) useful for diagnosing, preventing or treating inflammation or disorders associated with inappropriate apoptosis, in chromosomal mapping or in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 MIRTAGRDGLCRLSTYLEELEAVELKKFKLYLGTATELGEGKIPWGSMEKAGPLEMAQLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 MLRTAGROGLCRLSTYLEELEAVELKKFKLYLGTATELGEGKIPWGSMEKAGPLEMAQLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 28;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 1061;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ITHFGPEEAWRLALSTFERINRKDLWERGQREDLVR-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99.3%; Score 5433; D
97.4%; Pred. No. 0;
iive 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 8; SEQ ID NO 18; 199pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Blatcher M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          L7-APR-2002; 2002US-00124498.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (MILL-) MILLENNIUM PHARM INC.
(AMHP ) WYETH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      14-APR-2003; 2003WO-US011572
Human PYRIN-8 protein #2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity 97.4
Matches 1034; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2003-845527/78.
N-PSDB; ADF94754.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bertin J, Wang W,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           pharmacogenomics.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 1061 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                       WO2003089588-A2
                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          30-OCT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
```

---DPQETYRDYVRRKFRLMEDRNARLGECVNLSHRYTRLLLVKEHSNPMQVQQQLLDTG 153

97

ઠે

antiarteriosclerotic, antipocriatic, antibacterial, virucide; neuroprotective; antiarthritic, antirbacterial, virucide; neuroprotective; antiarthritic; antirheumatic; antiasthmatic; nephrotropic; osteopathic; nootropic; intracellular signal transduction; inflammation; Alzheimer's disease; infection; psoriasis; asthma; arteriosclerosis; multiple sclerosis; rheumatoid arthritis; sarcoidosis; osteoarthritis; glomerulonephritis.

LTD.

F.

Tschopp J, Martinon (APOT -) APOTECH RES

WPI; 2002-427093/45.

N-PSDB; AAL47129

30-OCT-2001; 2001WO-EP012545

WO200240668-A2

23-MAY-2002

Unidentified

2000DE-01056687. & DEV

15-NOV-2000; 30-NOV-2000;

```
LIABGLOHPACRLOKLWLDSCGLTAKACENLYFTLGINQTLTDLYLTNNALGDTGVRLLC 1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 873
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               993
                                                                      240
                                                                                                  273
                                                                                                                            300
                                                                                                                                                        333
                                                                                                                                                                                    360
                                                                                                                                                                                                              393
                                                                                                                                                                                                                                        420
                                                                                                                                                                                                                                                                      453
                                                                                                                                                                                                                                                                                               480
                                                                                                                                                                                                                                                                                                                           513
                                                                                                                                                                                                                                                                                                                                                      540
                                                                                                                                                                                                                                                                                                                                                                                 573
                                                                                                                                                                                                                                                                                                                                                                                                             600
                                                                                                                                                                                                                                                                                                                                                                                                                                        633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                693
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     753
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GVLLLCEGLRHPTCKLQTLRLGICRLGSAACEGLSVVLQANHNLRELDLSFNDLGDWGLW 933
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LLAEGLOHPACRLOKLWLDSCGLTAKACENLYFTLGINQTLTDLYLTNNALGDTGVRLLC
PRKDPQETYRDYVRKFFRLMEDRNARLGECVNLSHRYTRLLLVKEHSNPMQVQQQLLDTG
                                                                                                                                                                           EILGESEAERKEYFYKYFHNAEQAGQVFNYVRDNEPLFTWCFVPLVCWVVCTCLQQQLEG
                                                                                                                                                                                                                                                                                    VTRLLTEYAFSERSFLALTSRFLFGLLNEETRSHLBKSLCWKVSPH1KMDLLQW1QSKAQ
                                                                                                                                                                                                                                                                                                                                                                                                  VTRILIEYAFSERSFLALISRFLFGLINEETRSHLEKSLCWKVSPHIKMDLLQWIQSKAQ
                                                                                                                                                                                                                                                                                                                                                                                                                                        SDGSTLQQGSLEFFSCLYEIQEEFFIQQALSHFQVIVVSNIASKMEHMVSSFCLKRCRSA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SDGSTLQQGSLEFFSCLYE1QEEEF1QQALSHFQV1VVSN1ASKMEHMVSSFCLKRCRSA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QVLHLYGATYSADGEDRARCSAGAHTLLVQL-PERTVLLDAYSEHLAAALCTNPNLIELS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LYRNALGSRGVKLLCQGLRHPNCKLQNLRLKRCRISSSACEDLSAALIANKNLTRMDLSG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NGVGFPGMMLLCEGLRHPQCRLQMIQLRKCQLESGACQEMASVLGTNPHLVELDLTGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NGVGFPGMALLCEGLRHPQCRLQMIQLRKCQLESGACQEMASVLGTNPHLVELDLTGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EDLGLRLLCQGLRHPVCRLRTLWLKICRLTAAACDELASTLSVNQSLRELDLSLNELGDL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EDLGLRLLCQGLRHPVCRLRTLWLKICRLTAAACDELASTLSVNQSLRELDLSLNELGDL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GVLLLCEGLRHPTCKLQTLRLGICRLGSAACEGLSVVLQANHNLRELDLSFNDLGDWGLW
                                                            RGHARTVGHQASPIKIETLFEPDEERPEPRTVVWQGAAGIGKSMLAHKVMLDWADGKLF
                                                                                                  QGRFDYLFYINCREMNQSATECSMQDLIFSCWPEPSAPLQELIRVPERLLFIIDGFDELK
                                                                                                                            QGRFDYLFYINCREMNQSATECSMQDLIFSCWPEPSAPLQBLIRVPERLLFIIDGFDELK
                                                                                                                                                        PSFHDPQGPWCLCWEEKRPTELLLNSLIRKKLLPELSLLITTRPTALEKLHRLLEHPRHV
                                                                                                                                                                                                              BILGFSEAERKEYFYKYFHNAEQAGOVFNYVRDNEPLFTMCFVPLVCWVVCTCLQQQLEG
                                                                                                                                                                                                                                                                      GGLLRQTSRTTTAVYMLYLLSLMQPKPGAPRLQPPPNQRGLCSLAADGLWNQKILFEEQD
                                                                                                                                                                                                                                                                                                                           LRKHGLDGEDVSAFLNMNI FOXDINCERYYSFIHLSFOEFFAAMYYILDEGEGGAGPDQD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                QVLHLYGATYSADGEDRARCSAGAHTLLVQLRPERTVLLDAYSEHLAAALCTNPNLIELS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LYRNALGSRGVKLLCQGLRHPNCKLQNLRLKRCRISSSACEDLSAALIANKNLTRMDLSG
                                           RGHARTVGHQASPIKIETLFEPDEERPEPPRTVVMQGAAGIGKSMLAHKVMLDWADGKLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       KRLSHPGCKLRVLWLFGMDLNKMTHSRLAALRVTKPYLDIGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       KRLSHPGCKLRVLWLFGMDLNKMTHSRLAALRVTKPYLDIGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 934
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           096
                                                                                                                                                                                     301
                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                            454
                                                                                                                                                                                                                                                                                                                                                                                    514
                                                                                                                                                                                                                                                                                                                                                                                                                                          574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            754
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   814
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       994
                                                                       181
                                                                                                   214
                                                                                                                               241
                                                                                                                                                         274
                                                                                                                                                                                                                334
                                                                                                                                                                                                                                                                      394
                                                                                                                                                                                                                                                                                                  421
                                                                                                                                                                                                                                                                                                                                                        481
                                           154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                 8
                                          ò
                                                                    원
                                                                                                  ò
                                                                                                                           원
                                                                                                                                                      ò
                                                                                                                                                                                                              ò
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       120
                                                                                                                                                                                                                                                                                                                                                                                                          The present invention relates the DNA and their encoded proteins, where the proteins contain at least one PYD (pyrin) domain. These can be used to treat diseases associated with impaired intracellular signal transduction, particularly inflammation such as psoriasis, arteriosclerosis, bacterial or viral infections (particularly meningitis and pneumonia), multiple sclerosis, rheumatoid arthritis, asthma, sarcoidosis, glomerulonephritis and osteoarthritis, and also Alzheimer's and Parkinson's diseases. The present sequence is a protein of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                     diseases
                                                                                                                                                                                                                                                                                                                               New DNA encoding protein with pyrin domain, useful for treating diseases involving impaired signal transduction, particularly inflammation, also proteins and antibodies.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GECVNLSHRYTRLLLVKEHSNPMQVQQQLLDTGRGHARTVGHQASPIKIBTLFEPDEERP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IRKKLLPELSLLITTRPTALEKLHRLLEHPRHVEILGFSEAERKEYFYKYFHNAEQAGQV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IRKKLLPELSLLITTRPTALEKLHRLLEHPRHVEILGFSEAERKEYFYKYFHNAEQAĞQV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ITHFGPEEAWRLALSTFERINRKDLWERGOREDLVRDPOETYRDYVRRKFRLMEDRNARL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IFSCWPEPSAPLOELIRVPERLLFIIDGFDELKPSFHDPQGPWCLCWEEKRPTELLLNSL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IFSCWPEPSAPLQELIRVPERLLFIIDGFDELKPSFHDPQGPWCLCWEEKRPTELLLNSL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MLRTAGRDGLCRLSTYLEELEAVELKKPKLYLGTATELGEGKI PWGSMEKAGPLEMAQLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GECVNLSHRYTRLLLVKEHSNPMQVQQQLLDTGRGHARTVGHQASPIKIETLFBPDEERP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EPPRIVVMQGAAGIGKSMLAHKVMLDWADGKLFQGRFDYLFYINCREMNQSATECSMQDL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 1099;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98.5%; Score 5389; D
100.0%; Pred. No. 0;
ive 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                        German.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches 1019; Conservative
                                                                                                                                                                                                                                                                                                                                                                                        Claim 5; Fig 1; 116pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 1099 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
```

Pyrin domain containing protein NALP3/PY5-hs.

(first entry)

20-AUG-2002

XXXEX8

AA017857;

AA017857

RESULT

Z

protein; 1099

1,

Gaps

9 9 180 213 240 273

120 153

96

333 360 420 453 480

393

540 573 9

513

9 693 720 753 780

```
The invention relates to a novel isolated nucleic acid molecule encoding a PAAD-containing polypebtide. The polypeptide of the invention demonstrates cytostatic activity and may be useful for preparing a composition for diagnosing or treating diseases associated with the PAAD domain-containing polypeptide, such as cancer, via gene therapy. The current sequence is that of the human PAAD domain-containing full-length protein of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 MLRTAGRDGLCRLSTYLEELEAVELKKFKLYLGTATELGEGKIPWGSMEKAGPLEMAQLL
                                                                                                                                                                                                                                                                                MLRTAGRDGLCRLSTYLEELEAVELKKFKLYLGTATELGEGKI PWGSMEKAGPLEMAQLL
                                                                                                                                                                                                                                                                                                                    ITHFGPEEAWRLALSTFERINRKDLWERGQREDLVR---------
                                                                                                                                                                                                                                                                                                                                  ---DPQETYRDYVRRKFRLMEDRNARLGECVNLSHRYTRLLLVKEHSNPMQVQQQLLDTG
                                                                                                                                                                                                                                                                                                                                                                                    PRXDPQETYRDYVRRKFRLMEDRNARLGECVNLSHRYTRLLLVKEHSNPMQVQQQLLDTG
                                                                                                                                                                                                                                                                                                                                                                                                                       RGHARTVGHQASPIKIETLFEPDEERPEPPRTVVMQGAAGIGKSMLAHKVMLDWADGKLF
                                                                                                                                                                                                                                                                                                                                                                                                                                      PSFHDPQGPWCLCWEEKRPTELLLNSLIRKKLLPELSLLITTRPTALEKLHRLLEHPRHV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EILGFSEAERKEYFYKYFHNAEQAGQVFNYVRDNEPLFTMCFVPLVCWVVCTCLQQQLEG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BILGFSBAERKEYFYKYFHNAEQAGQVFNYVRDNEPLFTMCFVPLVCWVVCTCLQQQLEG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGLLRQTSRTTTAVYMLYLLSLMQPKPGAPRLQPPPNQRGLCSLAADGLWNQKILFEEQD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGLLRQTSRTTTAVYMLYLLSLMQPKPGAPRLQPPNQRGLCSLAADGLWNQK1LFEEQD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LRKHGLDGEDVSAFLNMNIFQKDINCERYYSFIHLSFQEFFAAMYYILDEGEGAGPDQD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LRKHGLDGEDVSAFLNMNIFQKDINCERYYSFIHLSFQEFFAAMYYILDEGEGGAGFDQD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VTRLLTEYAFSERSFLALTSRFLFGLLNEETRSHLEKSLCWKVSPHIKMDLLQWIQSKAQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VTRILITEYAFSERSFLALITSRFLFGLINEETRSHLEKSLCWKVSPHIKMDLLQWIQSKAQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SDGSTLQQGSLEFFSCLYEIQEEEFIQQALSHFQVIVVSNIASKMEHMVSSFCLKRCRSA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SDGSTLQQGSLEFFSCLYEIQEEEFIQQALSHFQVIVVSNIASKMEHMVSSFCLKRCRSA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               QVI.HI.YGATYSADGEDRARCSAGAHTILLVQI.RPERTVI.LDAYSEHLAAALCTNPNI.IELS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                nucleic acid molecule encoding a PAAD-containing polypeptide, preparing a composition for diagnosing or treating e.g., cance
                                                                                                                                                                                                                                          27;
                                                                                                                                                                                                                 Length 1027
                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                         ;
                                                                                                                                                                                                                 DB
                                                                                                                                                                                                              Score 5259.5;
Pred. No. 0;
0; Mismatches
                                                            Claim 14; SEQ ID NO 68; 193pp; English.
                                                                                                                                                                                                                Query Match
Best Local Similarity 97.4%;
Matches 1000; Conservative
                                                                                                                                                                                        Sequence 1027 AA;
 ADJ19382
                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                       154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               634
                                                                                                                                                                                                                                                                                                                                                                   97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          721
 N-PSDB;
 g
                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                         요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ద
                                                                                                                                                                                                                                                                   à
                                               480
                                                                                                 540
                                                                                                                          540
                                                                                                                                                   600
                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                     720
                                                                                                                                                                                                                                                                                                     780
                                                                                                                                                                                                                                                                                                                              780
                                                                                                                                                                                                                                                                                                                                                       840
                                                                                                                                                                                                                                                                                                                                                                                840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1019
 420
                         420
                                                                        480
                                                                                                                                                                         600
                                                                                                                                                                                                                           099
                                                                                                                                                                                                                                                                            720
                                                                                                                                                                                                                                                                                                                                                                                                         900
                                                                                                                                                                                                                                                                                                                                                                                                                                  900
                                                                                                                                                                                                                                                                                                                                                                                                                                                          960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        · · ·
                                                                                                               NEETRSHLEKSLCWKVSPHIKMDLLQWIQSKAQSDGSTLQQGSLEFFSCLYEIQEEEFIQ
                                                                                                                                                                NEETRSHLEKSLCWKVSPHIKMDLLQWIQSKAQSDGSTLQQGSLEFFSCLYEIQEEFIQ
                                                                                                                                                                                                  QALSHFQVIVVSNIASKMEHMVSSFCLKRCRSAQVLHLYGATYSADGEDRARCSAGAHTL
                                                                                                                                                                                                                                                                  LRLKRCRISSSACEDLSAALIANKNLTRMDLSGNGVGFPGMMLLCEGLRHPQCRLQMIQL
                                                                                                                                                                                                                                                                                                                                                                    SAACEGLSVVLQANHNLRELDLSFNDLGDWGLWLLAEGLQHPACRLQKLWLDSCGLTAKA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FNYVRDNEPLFTMCFVPLVCWVVCTCLQQQLEGGGLLRQTSRTTTAVYMLYLLSLMQPKP
              FNYVRDNEPLFTMCFVPLVCWVVCTCLQQQLEGGGLLRQTSRTTTAVYMLYLLSLMQPKP
                                                GAPRLQPPPNQRGLCSLAADGLWNQXILFEEQDLRKHGLDGEDVSAFLNWNIFQKDINCE
                                                               GAPRLQPPPNQRGLCSLAADGLWNQKILFEEQDLRKHGLDGEDVSAFLNMNIFQKDINCE
                                                                                                RYYSFIHLSFQEFFAAMYYILDEGEGGAGPDQDVTRLLTEYAFSERSFLALTSRFLFGLL
                                                                                                                                                                                                                 QALSHFQVIVVSNIASKMEHMVSSFCLKRCRSAQVLHLYGATYSADGEDRARCSAGAHTL
                                                                                                                                                                                                                                                     LVQLRPERTVLLDAYSEHLAAALCTNPNLIELSLYRNALGSRGVKLLCQGLRHPNCKLQN
                                                                                                                                                                                                                                                                                                                                                       RKCQLESGACQEMASVLGTNPHLVELDLTGNALEDLGLRLLCQGLRHPVCRLRTLWLKIC
                                                                                                                                                                                                                                                                                                                                                                                                         RLTAAAACDELASTLSVNQSLRELDLSLNELGDLGVLLLCEGLRHPTCKLQTLRLGICRLG
                                                                                                                                                                                                                                                                                                       LRLKRCRISSSACEDLSAALIANKNLTRMDLSGNGVGFPGMMLLCEGLRHPQCRLQMIQL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CENLYFTLGINQTLTDLYLTNNALGDTGVRLLCKRLSHPGCKLRVLWLFGMDLNKWTHS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CENLYFTLGINQTLTDLYLTNNALGDTGVRLLCKRLSHPGCKLRVLWLFGMDLNKMTHS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PAN6.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cytostatic; cancer; gene therapy; human; PAAD domain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human PAN6 PAAD domain-containing full-length protein 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ā
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADJ19383 standard; protein; 1027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      04-APR-2003; 2003US-00407866.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               04-APR-2002; 2002US-0370538P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2004-061677/06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Godzik A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (REED/) REED J C. (GODZ/) GODZIK A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US2004002593-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-JAN-2004.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20-MAY-2004
                                                                                                                                                                         541
361
                                               421
                                                                     421
                                                                                                481
                                                                                                                       481
                                                                                                                                                  541
                                                                                                                                                                                                                           601
                                                                                                                                                                                                                                                                                                                                                      781
                                                                                                                                                                                                                                                                                                                                                                                                         841
                                                                                                                                                                                                                                                                                                                                                                                                                                                         901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   961
                       361
                                                                                                                                                                                                  601
                                                                                                                                                                                                                                                   199
                                                                                                                                                                                                                                                                            661
                                                                                                                                                                                                                                                                                                     721
                                                                                                                                                                                                                                                                                                                              721
                                                                                                                                                                                                                                                                                                                                                                                781
                                                                                                                                                                                                                                                                                                                                                                                                                                 841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADJ19383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Reed JC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PAAD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADJ19383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT
                      셤
                                                                    셤
                                                                                                                       쉽
                                                                                                                                                                       임
                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                원
                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                               ò
                                                                                              δ
                                                                                                                                                ሯ
                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
```

```
241
                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         754
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         814
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               901
                                                            Query Match
                                                                                                                                                                                                           97
                                                                                                                                                                                                                                                          154
                                                                                                                                                                                                                                                                                                          214
                                                                                                                                                                                                                                                                                                                                                          274
                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                           334
                                                                                                                                                                                                                                                                                                                                                                                                                                                         394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        874
                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
SXXX
                                                                                                                                  유
                                                                                                                                                                                 셤
                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                             유
                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                             ઠ
                                                                                                                                                            ò
                                                                                                                                                             The invention relates to a novel isolated nucleic acid encoding a Monarch (CARD Caspase recruitment domain), transcription enhancer, R (purine) -binding, pyrin, lots of leucine repeats) 11.2, CATERPILLER 11.3, CATERPILLER 16.1, CATERPILLER 16.2 or CIASI (Coldiduced autcinflammatory syndrome 1) polypeptide comprising the amino acids encoded by exon 6 and lacking the amino acids encoded by exon 6 and lacking the amino acids encoded by exon 4 or its fragment. The nucleic acid of the invention demonstrates antiinflammatory and cytostatic activities and may be useful in preparing a composition for treating an inflammatory disease or canner, possibly via gene therapy. The current sequence is that of the human Monarch-1 (CATERPILLER 19.3) isoform II protein of the invention which is encoded
                                                                                                                       960
                        840
                                               873
                                                                      900
                                                                                                933
                                                                                                                                               993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CATERPILLER 11.3,
                                                                                                                                                                                                                                                                                                                                                                                 Monarch-1; CATERPILLER 11.2; caspase recruitment domain; CARD, transcription enhancer, R-binding, pyrin, lots of leucine repeat; CATERPILLER 11.3; CATERPILLER 16.2; CIASI; cold-induced autoinflammatory syndrome I; antiinflammatory; cytostatic; inflammatory disease; cancer; gene therapy; human; purine; CATERPILLER 19.3; chromosome 19q13; multiple sclerosis; isoform II.
                                                                                                             GVLLCEGLRHPTCKLQTLRLGICRLGSAACEGLSVVLQANHNLRELDLSFNDLGDWGLW
               NGVGFPGMMLLCEGLRHPQCRLQMIQLRKCQLESGACQEMASVLGTNPHLVELDLTGNAL
                                                              EDLGERILCQGLRHPVCRLRTLWLKICRLTAAACDELASTLSVNQSLRELDLSLNELGDL
                                                                                                GVLLLCEGLRHPTCKLQTLRLGICRLGSAACEGLSVVLQANHNLRELDLSFNDLGDWGLW
                                                                                                                                               LLAEGLQHPACRLQKLWLDSCGLTAKACENLYFTLGINQTLTDLYLTNNALGDTGVRLLC
NGVGFPGMMLLCEGLRHPQCRLQMIQLRKCQLESGACQEMASVLGTNPHLVELDLTGNAL
                                                EDLGLRLLCOGLRHPVCRLRTLWLKICRLTAAACDELASTLSVNOSLRELDLSLNELGDL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Harton JA, Williams KL, Lich J, O'connor W;
Brickey J, Conti B, Zhang J, Zhu X;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New nucleic acid encoding Monarch-1, CATERPILLER 11.2, CATERPILLER 1
CATERPILLAR 16.1, CATERPILLER 16.2 or CIASI polypeptide, useful in
preparing a composition for treating inflammatory disease or cancer.
                                                                                                                                                                                                                                                                                                                                                           Human Monarch-1 (CATERPILLER 19.3) isoform II protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 18; SEQ ID NO 4; 205pp; English
                                                                                                                                                                                                                                                                                  ADP47726 standard; protein; 1006 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             30-APR-2003; 2003WO-US013562.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    30-APR-2002; 2002US-0376626P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (UYNC-) UNIV NORTH CAROLINA,
                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                               KRLSHPG 1000
                                                                                                                                                                                                                       1027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Linhoff MW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Davis B,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2004-348215/32.
N-PSDB; ADP47725.
                                                                                                                                                                                                                 KRLSHPG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO2004034093-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        sapiens
                                                                                                                                                                                                                                                                                                                                   12-AUG-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      22-APR-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ting JY, 1
                                                                                                                                                                                                                       1021
                                                                                                                                                                                                                                                                                                          ADP47726;
                     781
                                               814
                                                                       841
                                                                                              874
                                                                                                                       901
                                                                                                                                               934
                                                                                                                                                                        961
                                                                                                                                                                                               994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo
                                                                                                                                                                                                                                                                        ADP4772
                                                                                                                                                                                                                                                            RESULT
                                                                                                                                                                                                                                                                                               g
                                               ò
                                                                      g
                                                                                              ò
                                                                                                                    g
                                                                                                                                               8
                                                                                                                                                                     g
                                                                                                                                                                                               8
                                                                                                                                                                                                                    유
```

```
2
                                                                                                                                                                                                                                                                                                                                                                                                                                213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          513
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          693
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         753
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      873
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121 PRKDPQETYRDYVRRKFRLMEDRNARLGECVNLSHRYTRLLLVKEHSNPMQVQQLLLDTG 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     300
                                                                                                                                                                                                                                                                                                       61 ITHFGPEFAWRLALSTFERINRKDLWERGQREDLVRDTPPGGPSSLGNQSTCLLEVSLVT 120
                                                                                                                                                                                    9
                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                   96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LRKHGLDGEDVSAFLMMNIFQKDINCERYYSFIHLSFQEFRAAMYYILDEGEGGAGFDQD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SDGSTLQQGSLEFFSCLYEIQEEFIQQALSHFQVIVVSNIASKWEHMYSSFCLKRCRSA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LYRNALGSRGVKLLCQGLRHPNCKLQNLRLKRCRISSSACEDLSAALIANKNLTRMDLSG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NGVGFPGMMLLCEGLRHPQCRLQMIQLRKCQLESGACQEMASVLGTNPHLVELDLTGNAL
                                                                                                                                                                                                            MIRTAGRDGLCRLSTYLBELEAVELKKFKLYLGTATELGEGKI PWGSMEKAGPLEMAQLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                        181 RGHARTVGHQASPIKIETLFEPDEERPEPPRTVVWQGAAGIGKSMLAHKVMLDWADGKLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PSFHDPQGPWCLCWEEKRPTELLLNSLIRKKLLPELSLLITTRPTALEKLHRLLEHPRHV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ELLGFSEAERKEYFYKYFHNAEQAGQVFNYVRDNEPLFTMCFVPLVCWVVCTCLQQQLEG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGLLRQTSRTTTAVYMLYLLSLMQPKPGAPRLQPPPNQRGLCSLAADGLWNQKILFEEQD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGILRQTSRTTTAVYMLYLLSLMQPKPGAPRLQPPPNQRGLCSLAADGLWNOKILFEEQD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LRKHGLDGEDVSAFLNMNIFQKDINCERYYSFIHLSFQEFFAAMYXILDEGEGGAGPDQD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VTRLLTEYAFSERSFLALTSRFLFGLLNEETRSHLEKSLCWKVSPHIKMDLLQWIQSKAQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SDGSTLQQGSLEFFSCLYEIQEEEFIQQALSHFQVIVVSNIASKWEHMVSSFCLKRCRSA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QVLHLYGATYSADGEDRARCSAGAHTLLVQLRPERTVLLDAYSEHLAAALCTNPNLIELS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NGVGFPGMMLLCEGLRHPQCRLQMIQLRKCQLESGACQEMASVLGTNPHLVELDLTGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EDLGLRILCOGLRHPVCRIRTLWLKICRLTAAACDELASTLSVNQSLRELDLSLNELGDL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BDLGLKLCQGLRHPVCRLRTLWLKICRLTAAACDELASTLSVNQSLRELDLSLNELGDL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GVLLLCEGLRHPTCKLQTLRLGICRLGSAACEGLSVVLQANHNLRELDLSFNDLGDWGLW
                                                                                                                                                                                    1 MLRTAGRDGLCRLSTYLEELEAVELKKFKLYLGTATELGEGKIPWGSMEKAGPLEMAQLL
                                                                                                                                                                                                                                                                                                                                                    ---DPQETYRDYVRRKFRLMEDRNARLGECVNLSHRYTRLLLVKEHSNPMQVQQQLLDTG
                                                                                                                                                                                                                                                                                                                                                                                                                                RGHARTVGHQASPIKIETLFEPDEERPEPRTVVMQGAAGIGKSMLAHKVMLDWADGKLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               QGRFDYLFYINCREMNQSATECSMQDLIFSCWPEPSAPLQELIRVPERLLFIIDGFDELK
                                                                                                                                              Gaps
                                                                                                   Length 1006;
                                                                                                                                            83;
  multiple sclerosis
                                                                                                                                            Indels
                                                                                                                                                                                                                                                                   ITHFGPEEAWRLALSTFERINRKDLWERGQREDLVR------
                                                                                                   8
                                                                                                                                            .;
0
                                                                                                   В
                                                                                               Score 5113.5;
Pred. No. 0;
0; Mismatches
by DNA located on chromosome 19q13, in the susceptibility region.
                                                                                                   93.4%;
                                                                                                                       Best Local Similarity 92.2
Matches 979; Conservative
                                                             Sequence 1006 AA;
```

333 360 393 420 480 513 540 573 9 633 9 693 719 753 779 813 839 873 899

453

273

```
PRKDPQETYRDYVRRKFRLMEDRNARLGECVNLSHRYTRLLLVKEHSNPMQVQQQLLDTG 180
                             SDGSTLOGGSLEFFSCLYEIGEEFIGOALSHPQVIVVSNIASKMEHTVSSFCLKRCRSA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LYRNALGSRGVKLLCQGLRHPNCKLQNLRLKRCRISSSACEDLSAALIANKNLTRMDLSG
                                                                                        OGRFDYLFYINCREMNOSATECSMODLIFSCWPEPSAPLOELIRVPERLLFIIDGFDELK
                                                                                                                                                  PSFHDPQGPWCLCWEEKRPTELLLNSLIRKKLLPELSLLITTRPTALEKLHRLLEHPRHV
                                                                                                                                                                     PSFHDPQGPWCLCWEEKRPTELLLNSLIRKKJLPELSLLITTRPTALEKLHRLLEHPRHV
                                                                                                                                                                                                             EILGFSEAERKEYFYKYFHNAEQAGQVFNYVRDNEPLFTMCFVPLVCWVVCTCLQQQLEG
                                                                                                                                                                                                                              EILGFSEAERKEYFYKYFHNAEQAGQVFNYVRDNEPLFTMCFVPLVCWVVCTCLQQQLEG
                                                                                                                                                                                                                                                                     GGLLRQTSRTTTAVYMLYLLSLMQPKPGAPRLQPPPNQRGLCSLAADGLWNQKILFEEQD
                                                                                                                                                                                                                                                                                        GGLLRQTSRTTTAVYMLYLLSLMQPKPGAPRLQPPNQRGLCSLAADGLWNQKILFEEQD
                                                                                                                                                                                                                                                                                                                                  LRKHGLDGEDVSAFLNMNIFQKDINCERYYSFIHLSFQEFFAAMYYILDEGEGGAGPDQD
                                                                                                                                                                                                                                                                                                                                                     LRKHGLDGEDVSAFLNMNIFQKDINCERYYSFIHLSFQEFFAAMYYILDEGEGGAGFDQD
                                                                                                                                                                                                                                                                                                                                                                                            VTRLLTEYAFSERSFLALTSRFLFGLLNEETRSHLEKSLCWKVSPHIKMDLLQWIQSKAQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                     SDGSTLQQGSLEFFSCLYEIQEEFFIQQALSHPQVIVVSNIASKMEHMVSSFCLKRCRSA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QVLHLYGATYSADGEDRARCSAGAHTLLVQLRPERTVLLDAYSEHLAAALCTNPNLIELS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                QVLHLYGATYSADGEDRARCSAGAHTLLVQL-PERTVLLDAYSEHLAAALCTNPNLIELS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LYRNALGSRGVKLLCQGLRHPNCKLQNLRLKRCRISSSACEDLSAALIANKNLTRMDLSG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NGVGFPGMMLLCEGLRHPQCRLQMIQLRKCQLESGACQEMASVLGTNPHLVELDLTGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NGVGFPGMMILCEGLRHPQCRLQMIQLRKCQLESGACQEMASVLGTNPHLVELDLTGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EDLGLRLLCQGLRHPVCRLRTLWLKICRLTAAACDELASTLSVNQSLRELDLSLNELGDL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EDLGLRLLCQGLRHPVCRLRTLWLKICRLTAAACDELASTLSVNQSLRELDLSLNELGDL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GVLLLCEGLRHPTCKLQTLRLGICRLGSAACEGLSVVLQANHNLRELDLSFNDLGDWGLW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   934 LLAEGLOHPACRLOKLWLDSCGLTAKACENLYFTLGINQTLTDLYLTNNALGDTGVRLLC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ------LDSCGLTAKACENLYFTLGINQTLTDLYLTNNALGDTGVRLLC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            KRLSHPGCKLRVLWLFGMDLNKMTHSRLAALRVTKPYLDIGC 1035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            KRLSHPGCKLRVLWLPGMDLNKMTHSRLAALRVTKPYLDIGC 1004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human Monarch-1 (CATERPILLER 19.3) isoform III protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ź
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADP47728 standard; protein; 950
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              12-AUG-2004
                                                                                                                                                                                                                                                                                                                                                              481
                                                                                                                                                                                301
                                                           181
                                                                                                                                                                                                                                                                                                                                                                                            514
 121
                                                                                                                    241
                                                                                                                                                  274
                                                                                                                                                                                                            334
                                                                                                                                                                                                                                         361
                                                                                                                                                                                                                                                                                                                                 454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    754
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               814
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           840
                               154
                                                                                        214
                                                                                                                                                                                                                                                                     394
                                                                                                                                                                                                                                                                                                   421
                                                                                                                                                                                                                                                                                                                                                                                                                                                     574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADP47728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADP47728
ID ADP4
XX
AC ADP4
XX
DT 12-A
XX
XX
XX
XX
XX
XX
XX
                             ò
                                                         셤
                                                                                     8
                                                                                                              원
                                                                                                                                                  ð
                                                                                                                                                                             g
                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                           유
                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   쉱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Otsuki T, Wakamatsu A, Sato H, Ishii S;
Hio Y, Otsuka K, Nagai K, Irie R, Tamechika I;
Otsuka M, Nagahari K, Masuho Y;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             120
LLAEGLQHPACRLOKLWLDSCGLTAKACENLYFTLGINQTLTDLYLTNNALGDTGVRLLC 993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ---DPQETYRDYVRRKFRLMEDRNARLGECVNLSHRYTRLLLVKEHSNPMQVQQQLLDTG 153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The invention relates to a novel human polynucleotide and the encoded polypeptide. A polynucleotide of the invention may have a use in gene therapy. An oligonucleotide of the invention ADM06202-ADM06773 is useful as a primer for synthesizing the polynucleotide or as a probe for detecting the polynucleotide. The polynucleotides ADM0136-ADM03758 are useful in gene therapy, for developing a diagnostic marker or medicines for regulating their expression and activity, or as a target of gene therapy. The proteins ADM03759-ADM06201 encoded by the polynucleotides are useful as pharmaceutical agents. The present sequence represents a protein sequence of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MLRTAGRDGLCRLSTYLEELEAVELKKFKLYLGTATELGEGKI PWGSMEKAGPLEMAQLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MLRTAGRDGLCRLSTYLEELEAVELKKPKLYLGTATELGEGKI PWGSMEKAGPLEMAQLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New polynucleotides and polypeptides are useful in gene therapy, developing a diagnostic marker or medicines for regulating their expression and activity, or as a target of gene therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        85;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 1004;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1; Indels
                                                                                    -----WLFGMDLNKMTHSRLAALRVTKPYLDIGC 1006
                                                                                                                                                                                                                                                                                  human; gene therapy; diagnostic marker; pharmaceutical.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ITHFGPEEAWRLALSTFERINRKDLWERGQREDLVR-----
                                                         KRLSHPGCKLRVLWLFGMDLNKMTHSRLAALRVTKPYLDIGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 7;
                                                                                                                                                                                                                                                      Human protein of the invention SEQ ID NO:3161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 5077.5;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 1; SEQ ID NO 3161; 305pp; English
                                                                                                                                                                Ş
                                                                                                                                                              ADM04476 standard; protein; 1004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (REAS-) RES ASSOC BIOTECHNOLOGY
                                                                                                                                                                                                                                                                                                                                                                                                                                    22-MAR-2002; 2002JP-00137785.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       92.8%;
91.9%;
                                                                                                                                                                                                                                                                                                                                                                                                       12-APR-2002; 2002EP-00008400
                        LLAEGLQHPACRLQKLW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches 976; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              T, Sugiyama T,
5 J, Isono Y, F
Yoshikawa T, C
                                                                                                                                                                                                                        (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2003-723558/69.
N-PSDB; ADM02033.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 1004 AA;
                                                                                                                                                                                                                                                                                                               Homo sapiens.
                                                                                                                                                                                                                                                                                                                                             EP1347046-A1
                                                                                                                                                                                                                                                                                                                                                                           24-SEP-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Isogai T,
Yamamoto J
                                                         994
                                                                                                                                                                                            ADM04476;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -1
 934
                            961
                                                                                     978
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Seki N,
                                                                                                                                                  ADM04476
                                                                                                                                 RESULT
                                                                                                                                                              ò
                            유
                                                         ઠ
                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
```

962

ò

993

```
PSFHDPQGPWCLCWEEKRPTELLINSLIRKKLLPELSLLITTRPTALEKLHRLLEHPRHV
                                                                                                                                                                                                                                                                                                                                                                                                            EDLGLRILCOGLRHPVCRIRTIW-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ŗ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADC31287 standard; protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO2003029271-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      18-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              994
                                                                                                                                                                                                                                                                             661
                                                                                                                                                                                                                                                                                                                                             754
                                                                                                                                                                                                                                                                                                                                                                   781
                                                                                                                                                                                                                                                                                                                                                                                          814
                                                                                                                                                                                                                                                                                                                                                                                                                                                            864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  909
                                                                                                                                         481
                                                                                                                                                                514
                                                                                                                                                                                                            574
                                                                                                                                                                                                                                 601
                                                                                                                                                                                                                                                        634
                                                                                                                                                                                                                                                                                                    694
                                                                                                                                                                                                                                                                                                                        721
                           334
                                                                        394
                                                                                             421
                                                                                                                   454
       301
                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADC31287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                  임
                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                      요
                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                      ò
                                              g
                                                                      ò
                                                                                         쉽
                                                                                                                  ð
                                                                                                                                      g
                                                                                                                                                               ò
                                                                                                                                                                                 셤
                                                                                                                                                                                                            8
                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                     The invention relates to a novel isolated nucleic acid encoding a Monarch-1, CATERPILLER (CARD [caspase recruitment domain], transcription enhancer, R(purine)-binding, pyrin, lots of leucine repeats) 11.2, CATERPILLER 11.3, CATERPILLER 16.2 or CIAS1 (coldinated autoinflammatory syndrome 1) polypeptide comprising the amino acids encoded by exon 6 and lacking the amino acids encoded by exon 6 and lacking the amino acids encoded by exon 7 antiinflammatory and cytostatic acid of the invention demonstrates antiinflammatory and cytostatic activities and may be useful in preparing a composition for treating an inflammatory disease or cancer, possibly via gene therapy. The current sequence is that of the human Monarch-1 (CATERPILLER 19.3) isoform III protein of the invention which is encoded by DNA located on chromosome 19q13, in the multiple sclerosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  96
                                                                                                                                                                                                                                                                                       New nucleic acid encoding Monarch-1, CATERPILLER 11.2, CATERPILLER 11.3, CATERPILLER 16.2 or CIASI polypeptide, useful in preparing a composition for treating inflammatory disease or cancer.
       Monarch-1; CATERPILLER 11.2; caspase recruitment domain; CARD transcription enhancer, R-binding, pyrin, lots of leucine repeat; CATERPILLER 11.3; CATERPILLER 16.1; CATERPILLER 16.2; CIAS1; cold-induced autoinflammatory syndrome 1; antiinflammatory; cytostatic; inflammatory disease; cancer; gene therapy; human; purine; CATERPILLER 19.3; chromosome 19q13; multiple sclerosis; isoform III.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PSFHDPQGPWCLCWEEKRPTELLLNSLIRKKLLPELSLLITTRPTALEKLHRLLEHPRHV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRKDPQETYRDYVRRKFRLMEDRNARLGECVNLSHRYTRLLLVKEHSNPMQVQQLLDTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RGHARTVGHQASPIKIETLFEPDEERPEPPRTVVMQGAAGIGKSMLAHKVMLDWADGKLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      QGRFDYLFYINCREMNQSATECSMQDLIFSCWPEPSAPLQELIRVPERLLFIIDGFDELK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ---DPQETYRDYVRRKFRLMEDRNARLGECVNLSHRYTRLLLVKEHSNPMQVQQQLLDDTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MLRTAGRDGLCRLSTYLEELEAVELKKFKLYLGTATELGEGKI PWGSMEKAGPLEMAQLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ITHFGPEEAWRLALSTFERINRKDLWERGQREDLVR-------------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                         3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels 139;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 950;
                                                                                                                                                                                                                         Lich
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .;
0
                                                                                                                                                                                                                         KL,
Zhang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 4799.5;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                         Williams
Conti B, 2
                                                                                                                                                                                                                                                                                                                                       Claim 18; SEQ ID NO 6; 205pp; English
                                                                                                                                                                                                                                     Brickey J,
                                                                                                                                                                                                                           Harton
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          87.78;
                                                                                                                                                        30-APR-2003; 2003WO-US013562.
                                                                                                                                                                             30-APR-2002; 2002US-0376626P.
                                                                                                                                                                                                    (UYNC-) UNIV NORTH CAROLINA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   tches 923; Conservative
                                                                                                                                                                                                                          MW,
                                                                                                                                                                                                                         Linhoff MW
Davis B,
                                                                                                                                                                                                                                                           WPI; 2004-348215/32.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity
                                                                                                                                                                                                                                                                       N-PSDB; ADP47727.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 950 AA;
                                                                                                             WO2004034093-A2
                                                                                                                                   22-APR-2004
                                                                                                                                                                                                                          Ting JY, 1
Moore CB,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        214
          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            쉱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
```

```
099
                                    420
                                                                               453
                                                                                                                          480
                                                                                                                                                                      513
                                                                                                                                                                                                               540
                                                                                                                                                                                                                                                        573
                                                                                                                                                                                                                                                                                                   600
                                                                                                                                                                                                                                                                                                                                              633
                                                                                                                                                                                                                                                                                                                                                                                                                                  693
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      753
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BDLGLRIJ.COGLRHPVCRLRTLWLKICRLTAAACDELASTLSVNOSLRELDLSLNELGDL 873
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   933
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            863
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human; diagnostic; drug screening; forensics; gene mapping; biodiversity assessment; Parkinson's disease; Alzheimer's disease; neurodegenerative disease; anaemia; platelet disorder; wound; burns; ulcers; osteoporosis; autoimmune disease; cancer; marker; food supplement; antiparkinsonian; nootropic; neuroprotective; antianemia; anticoagulant; thrombolytic; vulnerary; antiuloer; osteopathic; immunosuppressive; antiinflammatory; cytostatic; gene therapy; chromosome 19.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     934 LLAEGLQHPACRLQKLWLDSCGLTAKACENLYFTLGINQTLTDLYLTNNALGDTGVRLLC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              874 GVLLLCEGLRHPTCKLQTLRLGICRLGSAACEGLSVVLQANHNLRELDLSFNDLGDWGLM
                                                                                                                                                                                                                                                                                                                                                                     SDGSTLQQQSLEFFSCLYEIQBEEFIQQALSHPQVIVVSNIASKWEHMVSSFCLKRCRSA
                                                                                                                                                                                                                                                                                                                                                                                                                                                         LYRNALGSRGVKLLCQGLRHPNCKLQNLRLKRCRISSSACEDLSAALIANKNLTRMDLSG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NGVGFPGMMLLCEGLRHPQCRLQMIQLRKCQLESGACQEMASVLGTNPHLVELDLTGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LRKHGLDGEDVSAFLNMNI FQKDINCERYYSFIHLSFQEFFAAMYYILDEGEGGAGFDQD
                                                                                                                                                                                                   VTRILITEYAFSERSFLALISRF1FGLLNEETRSHLEKSLCWKVSPHIKMDLLQWIQSKAQ
                                                                                                                                                                                                                                                                                     SDGSTLQQGSLEFFSCLYEIQEEEFIQQALSHFQVIVVSNIASKMEHMVSSFCLKRCRSA
                                                                                                                                                                                                                                                                                                                                                                                                                                  QVLHLYGATYSADGEDRARCSAGAHTLLVQLRPERTVLLDAYSEHLAAALCTNPNLIELS
                                                                                 GGLLRQTSRTTTAVYMLYLLSLMQPKPGAPRLQPPPNQRGLCSLAADGLWNQKILFEEQD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LYRNALGSRGVKLLCQGLRHPNCKLQNLRLKRCRISSSACEDLSAALIANKNLTRMDLSG
BILGFSEAERKEYFYKYFHNAEQAGOVFNYVRDNEPLFTMCFVPLVCWVVCTCLQQQLEG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KRLSHPGCKLRVLWLFGMDLNKMTHSRLAALRVTKPYLDIGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human novel polypeptide sequence, SEQ ID NO:1369.
```

```
SCGLTAKACENLYFTLGINQTLTDLYLTNNALGDTGVRLLCKRLSHPGCKLRVLWLFGMD 842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Monarch-1; CATERPILLER 11.2; caspase recruitment domain;
CARD, transcription enhancer, R-binding, pyrin, lots of leucine repeat;
CATERPILLER 11.3; CATERPILLER 16.1; CATERPILLER 16.2; CIAS1;
cold-induced autoinflammatory syndrome 1; antiinflammatory; cytostatic;
                                             181 TELLINSLIRKKLLPELSLLITTRPTALEKLHRLIEHPRHVEILGFSEAERKEYFYKYFH
                                                                                                                   241 NAEQAGQVENYVRDNEPLFTMCFVPLVCWVVCTCLQQQLEGGGLLRQTSRTTTAVYMLYL
                                                                                                                                                                           LSLMQPKPGAPRLQPPPNQRGLCSLAADGLWNQKILFEEQDLRKHGLDGEDVSAFLNMNI
                                                                                                                                                                                                                LSLMOPKPGAPRLOPPPNORGLCSLAADGLWNOKILFEEQDLRKHGLDGEDVSAFLNMNI
                                                                                                                                                                                                                                                     POKDINCERYYSFIHLSFOEFFAAMYYILDEGEGGAGPDODVTRLLTEYAFSERSFLALT
                                                                                                                                                                                                                                                                         361 FQKDINCERYYSFIHLSFQEFFAAMYYILDEGEGGAGPQDVTRLLTEYAFSERSFLALT
                                                                                                                                                                                                                                                                                                                            SRFLFGLLNEETRSHLEKSLCWKVSPHIKMDLLQWIQSKAQSDGSTLQQGSLEFFSCLYE
                                                                                                                                                                                                                                                                                                                                                    SRFLFGLINEETRSHLEKSLCWKVSPHIKMDLLQWIQSKAQSDGSTLQQGSLEFFSCLYE
                                                                                                                                                                                                                                                                                                                                                                                                       IQEEEFIQQALSHFQVIVVSNIASKMEHMVSSFCLKRCRSAQVLHLYGATYSADGEDRAR
                                                                                                                                                                                                                                                                                                                                                                                                                              CSAGAHTLLVQLRPERTVLLDAYSEHLAAALCTNPNLIELSLYRNALGSRGVKLLCQGLR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CSAGAHTLLVQL-PERTVLLDAYSEHLAAALCTNPNLIELSLYRNALGSRGVKLLCQGLR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HPNCKLQNLRLKRCRISSSACEDLSAALIANKNLTRMDLSGNGVGFPGMMLLCEGLRHPQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HPNCKLQNIRLKRCRISSSACEDLSAALIANKNITRMDLSGNGVGFPGMMLLCEGLRHPQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CRLOMIQLRKCQLESGACQEMASVLGTNPHLVELDLTGNALEDLGLRLLCQGLRHPVCRL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CRLQMIQLRKCQLESGACQEMASVLGTNPHLVELDLTGNALEDLGLRLLCQGLRHPVCRL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RTLWLKICRLTAAACDELASTLSVNQSLRELDLSLNELGDLGVLLLCEGLRHPTCKLQTL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RLGICRLGSAACEGLSVVLQANHNLRELDLSFNDLGDWGLWLLAEGLQHPACRLQKLWLD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SCGLTAKACENLYFTLGINQTLTDLYLTNNALGDTGVRLLCKRLSHPGCKLRVLWLFGMD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      inflammatory disease; cancer; gene therapy; human; purine;
CATERPILLER 19.3; chromosome 19q13; multiple sclerosis; isoform IV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human Monarch-1 (CATERPILLER 19.3) isoform IV protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              К-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LNKMTHSRLAALRVTKPYLDIGC 1035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ź
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADP47730 standard; protein; 892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    12-AUG-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADP47730;
                                                                                                  353
                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                   421
                                                                                                                                                                                                                                                                                                                                                                                                       593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1013
                         293
                                                                                                                                                                           413
                                                                                                                                                                                                                                                                                                                              533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              833
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 953
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             843
                                                                                                                                                                                                                                                   473
                                                                                                ò
                                                                                                                             셤
                                                                                                                                                                         8
                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                             ď
                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                    유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                台
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The invention relates to 971 novel human CDNA sequences (ADC29919-CD ADC30889) and the polypeptides they encode (ADC30890-ADC31860). The invention also relates to nucleic acid sequences over 99% identical with the novel human CDNAs. The invention additionally encompasses expression vectors and host cells comprising a nucleic acid of the invention; an antibody against a polypeptide of the invention; an antibody of polymucleotides of the invention; and methods of identifying a compound which binds to a polypeptide of the invention. The invention further discloses methods of peventing, treating or ameliorating a medical condition; kits comprising polymucleotide probes and/or monoclonal antibodies for carrying out the methods of the invention. The invention; methods for the identification of compounds that modulate the invention; methods for the identification of compounds that modulate the invention; methods for the identification of compounds that modulate the invention; methods for the identification of compounds that modulate the invention; methods for the polymucleotide and/or polypeptide; and 767 contig sequences corresponding to the cDNA sequences of the invention and the invention are useful in diagnostics, dust ad polymeptides encoded by the contigs (ADC31861-ADC32627) and the polypeptides encoded by the contigs (ADC31861-ADC32627) and the polypeptides encoded by the contigs (ADC31861-ADC32627) and polymeptides encoded by the contigs (ADC31861-ADC32627) and polymeptides encoded by the contigs (ADC31861-ADC32627) and polypeptides encoded by the contigs (ADC31861-ADC32627) and polypeptides encoded by the contigs (ADC31861-ADC32627) and polypeptides encoded by the contigs (ADC31861-ADC32627) and polypeptides encoded by the contigs (ADC31861-ADC32627) and polypeptides encoded by the contigs (ADC31861-ADC32627) and polypeptides encoded by the contigs (ADC31861-ADC32627) and polypeptides encoded by the contigs (ADC326277) and polypeptides encoded by the contigs (ADC326277) and polypeptides encoded and products d
                                                                                                                                                                                                                                                                                                    New polynucleotide and polypeptide useful for diagnosing, preventing or treating conditions such as neurodegenerative diseases, anemias, platelet disorders, wounds, burns, ulcers, osteoporosis, autoimmune diseases or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      113 MEDRNARLGECVNLSHRYTRLLLVKEHSNPMQVQQLLDTGRGHARTVGHQASPIKIETL 172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TECSMODLIFSCWPEPSAPLOELIRVPERLLFIIDGFDELKPSFHDPQGPWCLCWEEKRP 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TECSMODLIFSCWPEPSAPLQELIRVPERLLFIIDGFDELKPSFHDPQGPWCLCWEEKRP 292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 MEDRNARLGECVNLSHRYTRLLLVKEHSNPMQVQQQLLDTGRGHARTVGHQASPIKIETL 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PEPDEERPEPPRIVVMQGAAGIGKSMLAHKVMLDWADGKLFQGRFDYLFYINCREMNQSA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                         Ë
                                                                                                                                                                         Wehrman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    28;
                                                                                                                                                                                            Weng G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               7; Length 865;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                         Wang J,
                                                                                                                                                                                        Wang Z,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                       Xue AJ, Zhao QA,
Ma Y, Asundi V,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ΩB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 4520; DB; Pred. No. 0; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                 Claim 20; SEQ ID NO 1369; 1185pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ftp.wipo.int/pub/published pct_sequences
                                                                                                                                                                                        Zhou P, Ghosh M, Wang D, Ma
Haley-Vicente D, Drmanac RT;
                                                       24-SEP-2002; 2002WO-US030474.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             82.6%;
93.7%;
                                                                                            24-SEP-2001; 2001US-0324631P
                                                                                                                                                                       Zhang J, Ren F,
Shosh M, Wang D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                               WPI; 2003-371981/35.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                               (HYSE-) HYSEQ INC.
                                                                                                                                                                                                                                                                   N-PSDB; ADC30316.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 865 AA;
                   10-APR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  865;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local S
Matches 865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                       Tang TY,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         233
요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ଚ
```

420 592 480 652 599 772 629

712

892

832

952

Q7-----

```
600
                                                                                                                                                633
                                                                                                                                                                                                                                                720
                                                                                                                                                                                                                                                                                                                    780
                                                                                                                                                                                                                                                                                                                                                    813
                                                                                                                                                                                                                693
                                                                                                                                                                                                                                                                                    753
                                                                                                                                                                                                                                                                                                                                                                                                                      EDIGLRIJCQGLRHPVCRIRTIWLKICRLTAAACDELASTLSVNQSIRELDLSINELGDL 873
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               863
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Monarch-1; CATERPILLER 11.2; caspase recruitment domain; CARD, transcription enhancer, R-binding, pyrin, lots of leucine repeat; CATERPILLER 11.3; CATERPILLER 16.2; CATERPILLER 16.2; CASI; cold-induced autoinflammatory syndrome 1; antiinflammatory; cytostatic; inflammatory disease; cancer; gene therapy; murine; mouse; purine; cATERPILLER 19.3.
                                                                                                                                                                                                                                    LYRNALGSRGVKLLCQGLRHPNCKLQNLRLKRCRISSSACEDLSAALIANKNLTRMDLSG
                                                                                                   SDGSTLQQGSLEFFSCLYEIQEEEFIQQALSHFQVIVVSNIASKMEHMYSSFCLKRCRSA
                                                                                                                                                                                                                                                                                                                                                      NGVGFPGMMLLCEGLRHPQCRLQMIQLRKCQLESGACQEMASVLGTNPHLVBLDLTGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        874 GVLLLCEGLRHPTCKLQTLRLGICRLGSAACEGLSVVLQANHNLRELDLSFNDLGDWGLM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            934 LLAEGLQHPACRLQKLWLDSCGLTAKACENLYFTLGINQTLTDLYLTNNALGDTGVRLLC
                                SDGSTLOQGSLEFFSCLYEIQEEFIQQALSHFQVIVVSNIASKMEHMVSSFCLKRCRSA
                                                                                                                                                                                                                                                                                    LYRNALGSRGVKLLCQGLRHPNCKLQNLRLKRCRISSSACEDLSAALIANKNLTRMDLSG
                                                                                                                                                                                                                                                                                                                                                                           NGVGFPGMMILCEGIRHPQCRLQMIQLRKCQIESGACQEMASVLGTNPHLVELDLTGNAL
          LRKHGLDGEDVSAFLNMNI FQKDINCERYYSFIHLSFQEFFAAMYYILDEGEGGAGPDQD
                                                                              VTRILITEYAFSERSFLALTSRFLFGLLNEETRSHLEKSLCWKVSPH1KMDLLQWIQSKAQ
                                                                                                                                                                                                                  QVI.HI.YGATYSADGEDRARCSAGAHTLILVQI.RPERTVLI.DAYSEHLAAALCTNPNLIELS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 connor W;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 zhu X;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               , Harton JA, Williams KL, Lich
Brickey J, Conti B, Zhang J, Z
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Murine Monarch-1 (CATERPILLER 19.3) predicted protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -----WLFGMDLNKMTHSRLAALRVTKPYLDIGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              994 KRLSHPGCKLRVLWLFGMDLNKWTHSRLAALRVTKPYLDIGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ė
                                                                                                                                                                                                                                                                                                                                                                                                                                           standard; protein; 1033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 30-APR-2002; 2002US-0376626P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 30-APR-2003; 2003WO-US013562.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (UYNC-) UNIV NORTH CAROLINA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Davis B,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ting JY, Linhoff
Moore CB, Davis E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO2004034093-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       12-AUG-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 22-APR-2004
                                                                                                                                                                                                                                                                                                                      721
                                                                                                                                                                                                                                                                                                                                                                                                                           814
                                                                                                                                                574
                                                                                                                                                                                                                                                    199
                                                                                                                                                                                                                                                                                                                                                                                         781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADP47732
                                                                                                                                                                                  601
                                                                                                                                                                                                                                                                                       694
                                                                                                                                                                                                                                                                                                                                                        754
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADP47732;
              454
                                                                                514
                                                                                                                                                                                                                    634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADP477.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ద
                                            D
                                                                                                                                                                                g
                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                ò
                                                                                                              셤
                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                  The invention relates to a novel isolated nucleic acid encoding a Monarch enhancer. Ripurine)-binding, pyrin, lots of leucine repeats) 11.2, CATERPILLER 11.3, CATERPILLER 16.1, CATERPILLER 16.2, induced autoinflammatory syndrome 1) polypeptide comprising the amino acids encoded by exon 6 and lacking the amino acids encoded by exon 6 and lacking the amino acids encoded by exon 6 and lacking the invention demonstrates and antiinflammatory and cytostatic acid of the invention demonstrates and a composition for treating an inflammatory disease or cancer, possibly via gene therapy. The current sequence is that of the human Monarch-1 (CATERPILER 19.3) isoform IV protein of the invention which is encoded by DNA located on chromosome 19913, in the multiple sclerosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      QGRFDYLFYINCREMNQSATECSMQDLIFSCWPEPSAPLQELIRVPERLLFIIDGFDELK 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PSFHDPQGPWCLCWEEKRPTELLINSLIRKKLLPELSLLITTRPTALEKLHRLIEHPRHV 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGLLRQTSRTTTAVYMLYLLSLMQPKPGAPRLQPPPNQRGLCSLAADGLWNQKILFEEQD 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGLLRQTSRTTTAVYMLYLLSLMQPKPGAPRLQPPPNQRGLCSLAADGLWNQKILFEEQD 453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       96
                                                                                                                                                                                                                                                                      New nucleic acid encoding Monarch-1, CATERPILLER 11.2, CATERPILLER 11.3, CATERPILLER 16.1, CATERPILLER 16.2 or CIASI polypeptide, useful in preparing a composition for treating inflammatory disease or cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRKDPQETYRDYVRRKFRLMEDRNARLGECVNLSHRYTRLLLVKEHSNPWQVQQQLLDTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               QGRFDYLFYINCREMNQSATECSMQDLIFSCWPEPSAPLQELIRVPERLLFIIDGFDELK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EILGFSEAERKEYFYKYFHNAEQAGQVFNYVRDNEPLFTMCFVPLVCWVVCTCLQQQLEG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MLRTAGRDGLCRLSTYLEELEAVELKKFKLYLGTATELGEGKI PWGSMEKAGPLEMAQLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ITHEGPERAWRLALSTFERINRKDLWERGOREDLVR------------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ---DPQETYRDYVRRKFRLMEDRNARLGECVNLSHRYTRLLLVKEHSNPMQVQQQLLDTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RGHARTVGHQASPIKIETLFEPDEERPEPPRTVVMQGAAGIGKSMLAHKVMLDWADGKLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PSFHDPQGPWCLCWEEKRPTELLLNSLIRKKLLPELSLLITTRPTALEKLHRLLEHPRHV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MLRTAGRDGLCRLSTYLEELEAVELKKFKLYLGTATELGEGKIPWGSMEKAGPLEMAQLL
                                                                                                                                                                    3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                    Lich J, O'connor
J, Zhu X;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0; Indels 197;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 892;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ..
6
                                                                                                                                                                  KL, I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 4458.5;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                    Williams
Conti B, Z
                                                                                                                                                                                                                                                                                                                                         Claim 18; SEQ ID NO 8; 205pp; English.
                                                                                                                                                                     Harton JA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0:
                                                                                                                                                                                    Brickey J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 81.5%;
ilarity 81.5%;
Conservative C
                                                                   30-APR-2003; 2003WO-US013562.
                                                                                                   30-APR-2002; 2002US-0376626P.
                                                                                                                                   (UYNC-) UNIV NORTH CAROLINA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     susceptibility region.
                                                                                                                                                                     Linhoff MW,
                                                                                                                                                                                                                     WPI; 2004-348215/32.
                                                                                                                                                                                     Davis B,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                     N-PSDB; ADP47729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 892 AA;
WO2004034093-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Simi
Matches 865;
                                 22-APR-2004
                                                                                                                                                                    Ting JY, Moore CB,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ouery
```

셤

셤

ઠ

g

δ

g

ઠે

8 8

à

요

ò

ద

ò

g

à

```
WPI; 2004-061677/06.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Reed JC, Godzik A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REED J C.
GODZIK A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US2004002593-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-JAN-2004.
                                                                                                                                                                                                                                                                                                                                                                                                                                  20-MAY-2004
                                                                                                                                                                                                               893 (
             654
                                                                                                                                                                                                                                                                                         1015
                                                                                     775
                                                                                                                                      835
                                    715
                                                            713
                                                                                                             773
                                                                                                                                                               833
                                                                                                                                                                                        895
                                                                                                                                                                                                                                        955
                                                                                                                                                                                                                                                                                                                                                                                                          ADJ19399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (REED/) 1
(GODZ/) (
                                                                                                                                                                                                                                                                                                                                                        RESULT 14
                                                                                                                                                                                                                                                                                                                                                                     ADJ19399
                               ₽
                                                           g
                                                                                ઠે
                                                                                                         엄
                                                                                                                                      ઠે
                                                                                                                                                            요
                                                                                                                                                                                     ò
                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                          ઠ
                                                                                                                     The invention relates to a novel isolated nucleic acid encoding a Monarch (CARD [Caspase recruitment domain], transcription enhancer, R (purine) -binding, pyrin, lots of leucine repeats) 11.2 (CATERPILLER 11.3, CATERPILLER 16.1, CATERPILLER 16.2 or CIAS1 (Coldinduced autoinflammatory syndrome 1) polypeptide comprising the amino acids encoded by exon 6 and lacking the amino acids encoded by exon 6 and lacking the invention demonstrates antinflammatory and cytostatic activities and may be useful in preparing composition for treating an inflammatory disease or cancer, possibly via gene therapy. The current sequence is that of the murine Monarch-1 (CATERPILLER 19.3) predicted protein of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       480
                                                                                                                                                                                                                                                                                                                                                                                                         114
                                                                                                                                                                                                                                                                                                                                                                                                                                  120
                                                                                                                                                                                                                                                                                                                                                                                                                                                        174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               653
                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                9
                                              New nucleic acid encoding Monarch-1, CATERPILLER 11.2, CATERPILLER 11.3, CATERPILLAR 16.1, CATERPILLER 16.2 or CIASI polypeptide, useful in preparing a composition for treating inflammatory disease or cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FLFGLLNEEMRCYLERNIGWSISPQVKEEVLAWIQNKAGSEGSTLQHGSLELLSCLYEVQ
                                                                                                                                                                                                                                                                                                                                                                     61 ITHFGPEEAWRLALSTFERINRKDLWERGOREDLVR-----DPOETYRDYVRRKFRLME
                                                                                                                                                                                                                                                                                                                                                                                                                      DRNARLGECVNLSHRYTRLLLVKEHSNPMQVQQQLLDTGRGHARTVGHQASPIKIETLFE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PDEERPEPPRIVVMQGAAGIGKSMLAHKVMLDWADGKLFQGRFDYLFYINCREMNOSATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         361 GQASRVLSFLMDYEPLFTMCFVPMVSWVVCTCLKQQLESGELLRQTPRTTTAVYMFYLLS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LMOPKPGTPTFKVPANORGLVSLAAEGLWNOKILFDEODLGKHGLDGADVSTFLNVNIFO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  KDINCERYYSFIHLSFOEFFAAMYYILDEGEGGAGPDQDVTRLLTEYAFSERSFLALTSR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FLFGLLNEETRSHLEKSLCWKVSPHIKMDLLQWIQSKAQSDGSTLQQGSLEFFSCLYEIQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 MLRTAGRDGLCRLSTYLEELEAVELKKFKLYLGTATELGEGKIPWGSMEKAGPLEMAQLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CSMODLIFSCWPEPSAPLOELIRVPERLLFIIDGFDELKPSFHDPQGPWCLCWEEKRPTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LLLNSLIRKKLLPELSLLITTRPTALEKLHRLLEHPRHVEILGFSEAERKEYFYKYFHNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EQAGQVFNYVRDNEPLFTMCFVPLVCWVVCTCLQQQLEGGGLLRQTSRTTTAVYMLYLLS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LMQPKPGAPRLQPPPNQRGLCSLAADGLWNQKILPEEQDLRKHGLDGEDVSAFLNMNIFQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EEEFIQQALSHFQVIVVSNIASKMEHMVSSFCLKRCRSAQVLHLYGATYSADGEDRARCS
                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                               14;
                                                                                                                                                                                                                                                                                                      Length 1033;
                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                              Matches 758; Conservative 111; Mismatches 158;
                                                                                                                                                                                                                                                                                                      DB 8;
                                                                                                                                                                                                                                                                                                     Score 3996;
Pred. No. 0;
                                                                                                 English
                                                                                                 Example 2; SEQ ID NO 10; 205pp;
                                                                                                                                                                                                                                                                                                     73.0%;
72.8%;
          WPI; 2004-348215/32.
N-PSDB; ADP47731.
                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                             Sequence 1033 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    595
                                                                                                                                                                                                                                                                                                                                                                                                                                                        115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             594
                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                   Local
셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
```

AGAHTLLVQLRPERTVLLDAYSEHLAAALCTNPNLIELSLYRNALGSRGVKLLCQGLRHP 714

```
1014
                                                                                                                                                                                                                                                                    1012
             712
                                     774
                                                            772
                                                                                     834
                                                                                                             832
                                                                                                                                        894
                                                                                                                                                                892
                                                                                                                                                                                           954
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The invention relates to a novel isolated nucleic acid molecule encoding demonstrates cytostatic activity and may be useful for preparing a composition for diagnosing or treating diseases associated with the pAAD domain-containing polypeptide, such as cancer, via gene therapy. The current sequence is that of the human PAAD/NACHT (NB [nucleotide binding) of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               tide, useful cancer.
LOMIQLRKCQLESGACQEMASVLGTNPHLVELDLTGNALEDLGLRLLCQGLRHPVCRLRT
                                                                                                     LWLKI CRLTAAACDELASTLSVNQSLRELDLSLNELGDLGVLLLCEGLRHPTCKLQTLRL
                                                                                                                                                        GICRIGSAACEGLSVVLQANHNLRELDLSFNDLGDWGLWLLAEGLQHPACRLQKLWLDSC
                                                                                                                                                                                                        GLTAKACENLYFTLGINQTLTDLYLTNNALGDTGVRLLCKRLSHPGCKLRVLWLFGMDLN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ....., cytostatic; cancer; gene therapy; human; PAAD domain; NACHT; NB-ARC; domain; nucleotide binding; ANGIO-R; ARED domain; angiotensin receptor-like; PANG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ID 90.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               nucleic acid molecule encoding a PAAD-containing polypeptide, preparing a composition for diagnosing or treating e.g., canc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human PAN6 PAAD/NACHT/ARED domain-containing protein - SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure; SEQ ID NO 90; 193pp; English.
                                                                                                                                                                                                                                                                                               KMTHSRLAALRVTKPYLDIGC 1035
                                                                                                                                                                                                                                                                                                                       1013 KKTHRRMAALRVTKPYLDIGC 1033
                                                                                                                                                                                                                                                                                                                                                                                       Ą
                                                                                                                                                                                                                                                                                                                                                                                       ADJ19399 standard; protein; 635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        04-APR-2003; 2003US-00407866
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                04-APR-2002; 2002US-0370538P
                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
```

```
cytostatic; immunosuppressive; vulnerary; antiinflammatory; vasotropic; antiallergic; antiulcer; dermatological; cerebroprotective; cardiant; antiparkinsonian; noctropic; neuroprotective; anti-HVV; gene therapy; NFkappaB activation inhibitor: PAMD domain containing polypeptide; PAMD and nucleotide binding protein 2-6; PAN 2-6; pyrin 2; PAND and nucleotide binding protein 2-6; PAN 2-6; pyrin 2; ASC-2; nuclear factor kappa B activation inhibitor; NB-ARC domain; apoptosis; NFkappaB induction; cytokine processing; cytokine receptor signaling caspase-mediated proteolysis; protein in receptor signaling caspase-mediated proteolysis; cytokine receptor signaling caspase-mediated proteolysis; inflammation; cell adhesion; cancer; keratinocyte; hyperplasia; neoplasia; keloid benign prostatic hypertrophy; inflammatory hyperplasia;
                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 541 NEETRSHLEKSLCWRVSPHIKMDLLQWIQSKAQSDGSTLQQGSLEFFSCLYEIQBEEFIQ 600
                                                                                                                                                                 120
                                                                                                                                                                                                   120
                                                                                                                                                                                                                                    180
                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                                                                        300
                                                                                                                                                                                                                                                                                                                                                                                                        300
                                                                                                                                                                                                                                                                                                                                                                                                                                         360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NEETRSHLEKSLCWKVSPHIKMDLLQWIQSKAQSDGSTLQQGGSLEFFSCLYEIQEEEFIQ 600
                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAPRLOPPNORGLCSLAADGLWNOKILFERODLRKHGLDGEDVSAFLNMNIFOKDINCE
                                                                                                                                                                                                 61 ITHFGPEEAWRLALSTFERINRKDLWERGQREDLVRDPQETYRDYVRRKFRLMEDRNARL
                                                                                                                                                                                                                                    GECVNLSHRYTRLLLVKEHSNPMQVQQQLLDTGRGHARTVGHQASPIKIETLFEPDEERP
                                                                                                                                                                                                                                                                GECVNLSHRYTRLLLVKEHSNPMQVQQQLLDTGRGHARTVGHQASPIKIETLFBPDEERP
                                                                                                                                                                                                                                                                                                     EPPRIVVMQGAAGIGKSMLAHKVMLDWADGKLFQGRFDYLFYINCREMNQSATECSMQDL
                                                                                                                                                                                                                                                                                                                         241 IFSCWPEPSAPLQELIRVPERLLFIIDGFDELKPSFHDPQGPWCLCWEEKRPTELLLNSL
                                                                                                                                                                                                                                                                                                                                                                                            IRKKLLPELSLLITTRPTALEKLHRLLEHPRHVEILGFSEAERKEYFYKYFHNAEQAGQV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                IRKKLLPELSILITTRPTALEKLHRILEHPRHVEILGFSEAERKEYFYKYFHNAEQAGQV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FNYVRDNEPLFTMCFVPLVCWVVCTCLQQQLEGGGLLRQTSRTTTAVYMLYLLSLMQPKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FNYVRDNEPLFTMCFVPLVCWVVCTCLQQQLEGGGLLRQTSRTTTAVYMLYLLSLMQPKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAPRLQPPPNQRGLCSLAADGLWNQKILFEEQDLRKHGLDGEDVSAFLNMNIFQKDINCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RYYSFIHLSFQEFFAAMYYILDEGEGGAGPDQDVTRLLTEYAFSERSFLALTSRFLFGLL
                                                                                                                              MLRTAGRDGLCRLSTYLEELEAVELKKFKLYLGTATELGEGKIPWGSMEKAGPLEMAQLL
                                                                                                                                                                   ITHFGPEEAWRLALSTFERINRKDLWERGQREDLVRDPQETYRDYVRRKFRLMEDRNARL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RYYSFIHLSFQEFFAAMYYILDEGEGGAGPDQDVTRLLTEYAFSERSFLALTSRFLFGLL
                                                                                               1 MIRTAGRDGLCRLSTYLEELEAVELKKFKLYLGTATELGEGKIPWGSMEKAGPLEMAQLL
                                                                 Gaps
                                                                 0
                               Length 635;
                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      seq id 64.
                            Score 3364; DB 8; I
Pred. No. 8.1e-313;
0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QALSHFQVIVVSNIASKMEHMVSSFCLKRCRSAQV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human PAN6 leucine-rich-repeat domain (LLR)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADE36457 standard; protein; 603 AA
                   61.5%; Scc.
100.0%; Pre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                 Conservative
                                               Similarity
Sequence 635 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        29-JAN-2004
                                                                 635;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADE36457;
                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    601
                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    601
                                                                                                                                                                     61
                                                                                                                                                                                                                                                                      121
                                 Query Match
                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADE36457
စ္တ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                  유
                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ठ
                                                                                                    8
                                                                                                                                                                     ò
                                                                                                                                                                                                   g
                                                                                                                                                                                                                                    ઠે
```

```
The invention describes an isolated PAAD domain containing polypeptide containing solated PAAD domain containing a caspase recruitment domain (ASC) -2 fully contained protein (RAM) 2-6, pyrin 2, apoptosis-associated speck containing a caspase recruitment domain (ASC) -2 fully defined in specification, where (I) is biologically active. (I) is useful for identifying a (I)-associated polypeptide, an agent altering that activity an agent that modulate PAAD domain mediated inhibtion of contidentifying an agent that modulates the activity of the NB-ARC domain polypeptide is useful for identifying an agent that modulates the activity of the NB-ARC domain of for identifying an agent that modulates the activity of the NB-ARC domain of for identifying an agent that modulates the activity of the NB-ARC domain of for identifying an agent that modulates the activity of the NB-ARC domain of for (I) (I) or its functional fragments is useful in altering cellular or biochemical process such as apoptosis, NRKappaB induction, cytokine contains activation, thus having modulating effect on cell or biochemical processes. (I) is useful for treating cancer pathologies, contains and death (apoptosis) inflammation, cell adhesion or other cellular or biochemical processes. (I) is useful for treating cancer pathologies, proliferation in arteries following balloon angioplasty (restenosis), contingential, inflammatory diseases and ulcerative colitis, graft verus host disease, stroke, heart failure, neurodegenerative diseases cub as parkineon's and Alzhamer's disease and ulcerative diseases cub enfection (HIV). (I) is useful for diagnosing cancer or monitoring cancer therapy. This is the amino acid sequence of a human PAAD and nucleotide colling protein PANG leucine-rich-repeat domain (LLR).
            restenosis; leukaemia; lymphoma; inflammatory disease; allergy; arthritis; lupus; schrojen's syndrome; Crohn's disease; ulergy; ulcerative collitis; graft versus host disease; stroke; heart failure; neurodegenerative disease; parkinson's disease; Alzheimer's disease; cancer therapy; PAAD domain family; human; PANG; leucine-rich-repeat;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Novel isolated PAAD domain containing polypeptide useful for inducing apoptosis by inhibiting nuclear factor kappa B activation and in gene therapy for treating cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ariza ME;
  balloon angioplasty;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 603;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pawlowski K, Fiorentino L,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             57.8%; Score 3163; DB 5; I 100.0%; Pred. No. 1.4e-293; iive 0; Mismatches 0;
smooth muscle cell proliferation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 24; SEQ ID NO 64; 93pp; English.
                                                                                                                                                                                                                                                                                                                                  26-SEP-2000; 2000US-00671760.
26-SEP-2000; 2000US-0367367P.
                                                                                                                                                                                                                                                                                              25-SEP-2001; 2001US-00965621.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best_Local Similarity 100.
Matches 603; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Chu
                                                                                                                                                                                                                                                                                                                                                                                                                                     CHU Z.
PAWLOWSKI K.
FIORENTINO L.
ARIZA M E.
STEHLIK C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Godzik A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2002-471256/50.
                                                                                                                                                                                                                                                                                                                                                                                                 REED J C.
GODZIK A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 603 AA;
                                                                                                                                                                                                          US2003077699-A1
                                                                                                                                                                     Homo sapiens.
                                                                                                                                                                                                                                                     24-APR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Reed JC, G
Stehlik C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (FIOR/) (ARIZ/) (STEH/)
                                                                                                                                                                                                                                                                                                                                                                                              (REED/)
(GODZ/)
(CHUZ/)
(PAWL/)
```

ö

PNORGLCSLAADGLWNOKILFEEQDLRKHGLDGEDVSAFLNWNIFQKDINCERYYSFIHL 488

429 Н

ઠ a

```
SSSACEDLSAALIANKNLTRMDLSCHGVGFPCRMILCEGLRHPQCKLCMIOLKKCOLESG 788
                                      PYL 1031
                                                                          PYL 603
                                  301
                                                                       1029
                               729
                                                                          601
යි
රි
      8 6
               8 8 8
                          음 &
                                  중 음
                                          셤
                                               ઠે
                                                  a
                                                      ઠે
                                                          g
                                                                  셤
                                                              ઠે
                                                                      ò
```

Search completed: February 8, 2005, 14:49:57 Job time : 180 secs

Lhis Page Blank (uspto)